

Finding of No Significant Impact:

Construction of FY06 Facilities at Fort Carson, Colorado

Fort Carson has prepared an Environmental Assessment (EA) (January 2006) that evaluates the potential environmental and socioeconomic impacts associated with construction of complexes for an Infantry Brigade Combat Team (IN BCT), Heavy Brigade Combat Team (Heavy BCT), and 4th Infantry Division (ID) Headquarters (HQ) Complexes at Fort Carson. The facilities are proposed to support Army Modular Force (AMF), Integrated Global Presence and Basing Strategy (IGPBS), and initial elements of BRAC. Preparation of a separate Environmental Impact Statement (EIS) will address additional BRAC actions, the permanent stationing of troops at Fort Carson, and construction programs commencing after 2006.

Description of the Proposed Action

Fort Carson is proposing three construction projects representing approximately 123 acres of construction within a total project area of approximately 365 acres. All construction would occur within or immediately adjacent to the cantonment area. The projects would provide facilities for an IN BCT, a Heavy BCT, and the 4th ID HQ Complexes. Construction of recreational facilities in Iron Horse Park to replace facilities lost as a result of construction will be addressed in the EIS for BRAC actions. Construction characteristics common to all projects include that the facilities be built to meet the Gold level as indicated by the Sustainable Project Rating Tool, comply with requirements under the Americans with Disabilities Act, and comply with requirements for anti-terrorism/force protection. In addition, mitigation for construction in contaminated soils and impacts to wetlands would be conducted under the proposed action.

Facilities provided by the three projects include administrative buildings, barracks, dining halls, organizational and private vehicle parking, storage buildings, vehicle maintenance facilities (including wash racks), a heliport, and company operations facilities.

The specific components of the Proposed Action are described in the attached EA. Construction for the three projects under the proposed action is scheduled to commence in March 2006 and continue through June 2010.

Wilderness Road Alternative

A site on Wilderness Road was considered as an alternative location to be used by either the Heavy BCT or the 4th ID HQ Complexes. The alternative site is located downrange from the cantonment area. The site is undeveloped on gently sloping terrain. Implementation of the alternative would require routing of additional new utility services from the cantonment area or offsite locations to the site. The site is not within or adjacent to the cantonment area, and thus lacks required operational support services. Duplicate services would have to be built to accommodate personnel working at this

alternative site. |
would be conducted as part of implementation of the alternative.

No Action Alternative

Under the no action alternative, no facilities would be constructed or renovated to support stationing of the new units. This alternative is not viable because existing facilities on Fort Carson are not capable of housing both currently assigned units and the additional units to be stationed under AMF and IGPBS.

Environmental Consequences

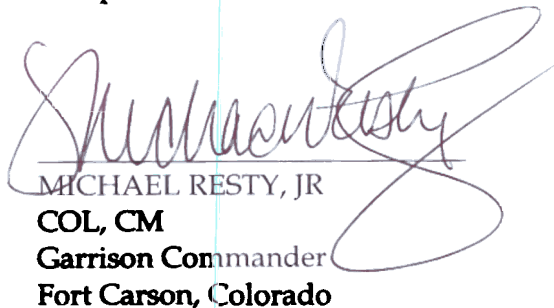
No significant negative environmental or socioeconomic consequences that could not be mitigated were identified in the EA for the proposed action. Implementation of the proposed action would result in less than significant permanent, adverse impacts to all resources. In addition, construction-related effects to all resource areas would be temporary and localized and potentially affect air quality, noise, geology and soils, water resources, transportation, and hazardous materials.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials. A permanent, beneficial impact to water supply would result from installation of a water tank by the Heavy BCT project that would improve water pressure for a significant portion of the cantonment area.

There would be minor displacement of wildlife from the project areas, but this impact would dissipate with time as animals acclimate to the new areas. There would be no impacts to rare, threatened, or endangered species.

Conclusion

The attached EA was prepared pursuant to 32 Code of Federal Regulations (CFR) 651 and U.S. Council on Environmental Quality (CEQ) regulations (Title 40, U.S. Code, Parts 1500-1508) for implementing the procedural requirements of the National Environmental Policy Act (NEPA). The finding of this EA is that the Proposed Action, with minor mitigation, would have no significant impact on the human or natural environment. Therefore, based on review of the EA, I conclude that the Proposed Action is not a major federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Accordingly, no Environmental Impact Statement (EIS) is required.

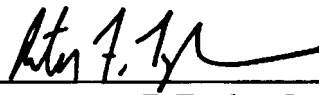

MICHAEL RESTY, JR
COL, CM
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Date: 11/20/2014

**ENVIRONMENTAL ASSESSMENT
CONSTRUCTION OF FY06 FACILITIES AT FORT
CARSON, COLORADO**

Prepared by:

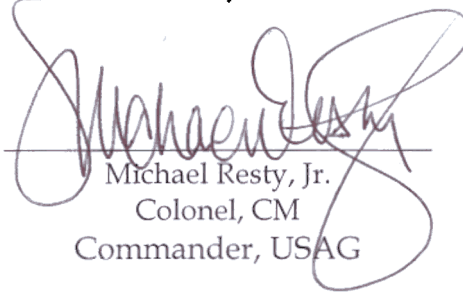
**Mobile District
U.S. Army Corps of Engineers,**

A handwritten signature in black ink, appearing to read "Peter F. Taylor, Jr.", written over a horizontal line.

**Peter F. Taylor, Jr.
Colonel, Engineer
Commanding**

Approved by:

Fort Carson, Colorado

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**Michael Resty, Jr.
Colonel, CM
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February 2006

Final Environmental Assessment

Construction of FY06 Facilities at Fort Carson, Colorado

Prepared for
U.S. Army Corps of Engineers, Mobile District

December 2005

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Atlanta, Georgia

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EXECUTIVE SUMMARY

As a result of reorganizations directed by the Army Modularity Force (AMF), Integrated Global Presence and Basing Strategy (IGPBS), and Base Realignment and Closure (BRAC) decisions, additional combat and supporting forces have been assigned to Fort Carson. Fort Carson proposes to initiate construction of three complexes in FY06 in support of these additional forces. Preparation of a separate Environmental Impact Statement (EIS) will address additional BRAC actions, the permanent stationing of troops at Fort Carson, and construction programs commencing after 2006.

ALTERNATIVES CONSIDERED

Proposed Action

Existing facilities at Fort Carson are inadequate to permanently house additional forces and new facilities must be secured. Fort Carson proposes to implement three construction projects on Post, representing an estimated 123 acres of construction with a total project area of approximately 388 acres. Construction of recreational facilities in Iron Horse Park to replace facilities lost as a result of construction will be addressed in the EIS for BRAC actions. All construction would occur within or immediately adjacent to the cantonment area. The projects would provide facilities for an Infantry Brigade Combat Team (IN BCT), Heavy Brigade Combat Team (Heavy BCT), and the 4th Infantry Division (ID) Headquarters (HQ).

Infantry Brigade Combat Team Complex

This project would construct a new IN BCT Complex on Post. Approximately 25 acres of new facilities and associated infrastructure would be constructed. The site proposed for the new dining facility is currently undeveloped and demolition would not be required. The softball field and adjacent running track currently located on the corner of O'Connell Boulevard and Magrath Avenue would be relocated to Iron Horse Park. Construction for the IN BCT Complex would occur within a total footprint of approximately 36 acres.

Heavy Brigade Combat Team Complex

This project would construct a new Heavy BCT Complex on Post. Under the proposed action, approximately 78 acres of new facilities and associated infrastructure would be constructed. Construction would occur within a total footprint of approximately 282 acres.

Administrative buildings, barracks, motor pools, tank trails, and parking facilities would be constructed in an undeveloped area immediately adjacent to the southeastern portion of the cantonment area. The project would also require realignment of roadways, demolition of a grenade practice training range and concrete slab, and mitigation for impacts to wetlands, prairie dog habitat, and corrective action sites.

4th ID HQ Complex

This project would construct a new 4th ID HQ Complex on Post. Demolition of an existing sports complex would be required to accommodate the new facilities. The recreational facilities would be replaced with a sports complex to be built in undeveloped areas of Iron Horse Park. The park could also be used for stormwater management to accommodate runoff from the newly constructed facilities. Furthermore, potential impacts, if any, to corrective action sites located at the proposed action site would be mitigated. Under the proposed action, approximately 20 acres of new facilities and associated infrastructure would be constructed within a total footprint of approximately 70 acres.

Heavy BCT and 4th ID HQ Complexes – Wilderness Road Area Alternative

A site on Wilderness Road was considered as an alternative location to be used for either the Heavy BCT or the 4th ID HQ Complexes. The site is located downrange from the cantonment area. Implementation of the alternative would require routing or installation of utility services (for example, gas, wastewater, water supply, electricity, stormwater, and telephone) from the cantonment area or offsite locations to the site. The site is not adjacent to the cantonment area or existing operational support services (for example, medical services and vendors). Therefore, duplicate services, would have to be built to accommodate personnel working at this alternative site. Biological and cultural resources surveys would need to be conducted as part of implementation of the alternative.

Heavy Brigade Motor Pools – Northeast of Minick Avenue

The motor pools for the Heavy BCT could be located northeast of Minick Avenue. This alternative was considered in the planning stages of the project development. However, the alternative was dismissed as not practicable because of the environmental impacts and costs related to moving soil and waste associated with a landfill site and to provide level ground for facility hardstands.

No Action Alternative

Under the no action alternative, no facilities would be constructed or renovated to support the new units. This alternative is not viable because existing facilities on Fort Carson are not adequate for both currently assigned units and the additional units required under AMF and IGPBS. The no action alternative serves as a benchmark for evaluation of the potential effects of the proposed action and is discussed as such in this EA.

FINDINGS

Consequences of the Proposed Action (Preferred Alternative)

Implementation of the proposed action would result in less than significant, permanent, adverse impacts to all resources. In addition, construction-related effects to all resource areas would be temporary and localized, and potentially would affect air quality, noise, geology and soils, water resources, transportation, and hazardous materials. Best management practices would be incorporated into the project design to further reduce impacts. Any required permits for wetlands or state and federal listed plant and animal species would be obtained prior to construction and conditions of those permits would be implemented. Corrective action sites would be closed out in accordance with Fort Carson's Part B permit issued under the Resource Conservation and Recovery Act. No significant cumulative or indirect impacts would result from implementation of the proposed action.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials. A permanent, beneficial impact to water supply would result from installation of a water tank for the IN BCT HQ Complex that would improve water supply and pressure.

Consequences of the Wilderness Road Area Alternative

According to the EA for *Construction of Facilities at Fort Carson* (Fort Carson, 2005), implementing the proposed action at Wilderness Road would result in less than significant

impacts. While the greatest impact would be the removal of several hundred acres of short grass prairie, the ecosystem is still considered strong on a regional basis, where private groups and agencies are jointly implementing conservation measures. The development would occur along existing roadways and near already developed areas—sites not considered to be high quality grassland ecosystem. Fort Carson actively manages grasslands to maintain their quality (that is, provide groundcover with native species and control invasive weeds). Other potential impacts to resources such as air quality, soils, and stormwater drainages would be reduced by including mitigation measures in the design of any complex to be built at Wilderness Road, and by phasing project construction.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials. No significant cumulative or indirect impacts would result from implementation of the proposed action.

Consequences of the No Action Alternative

Under the no action alternative, conditions would remain as they are and no construction would occur. There would be no adverse impacts to any resource area. No beneficial impacts to the local economy or to water supply would result under the proposed action.

CONCLUSIONS

With the proposed project design features, no significant impacts would occur as a result of implementation of either the proposed action or the Wilderness Road Area Alternative. Implementation of either action alternative would result in enhanced ability for Fort Carson to meet its military objectives.

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SECTION 1.0

PURPOSE, NEED, AND SCOPE

1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes the potential impacts of construction activities planned for Fiscal Year 2006 (FY06) in support of Army Modular Force (AMF), Integrated Global Presence and Basing Strategy (IGPBS), and Base Realignment and Closure (BRAC) actions scheduled to occur at Fort Carson, a U.S. Army (Army) installation located near Colorado Springs, Colorado (see Figure 1-1).

In October 1999, the Secretary of the Army and the Chief of Staff of the Army articulated a vision about people, readiness, and transformation of the Army to meet challenges emerging in the 21st century and the need to respond more rapidly to different types of operations requiring military action. In March 2002, the Army published the *Programmatic Environmental Impact Statement for Army Transformation* (USACE, 2002) for its proposal to conduct a multiyear, phased, and synchronized program of transformation. In April 2002, the Army issued a Record of Decision (ROD) reflecting its intent to transform the Army. Over a 30-year period, the Army will conduct a series of transformation activities affecting virtually all aspects of Army doctrine, training, leader development, organizations, installations, materiel, and soldiers. As part of its long-term transformation process, the Army is initiating permanent reorganization of its existing force structure and returning selected troop units from Korea and Europe to the United States. The reorganization of the existing Army force structure is referred to as the AMF and the program to return troops from Europe and Korea to the United States is referred to as the IGPBS. In addition, BRAC 2005 aids in restructuring the Department of Defense's (DoD's) domestic base structure to improve efficiency and operational capabilities. The U.S. Congress passed the BRAC recommendations into law in November 2005.

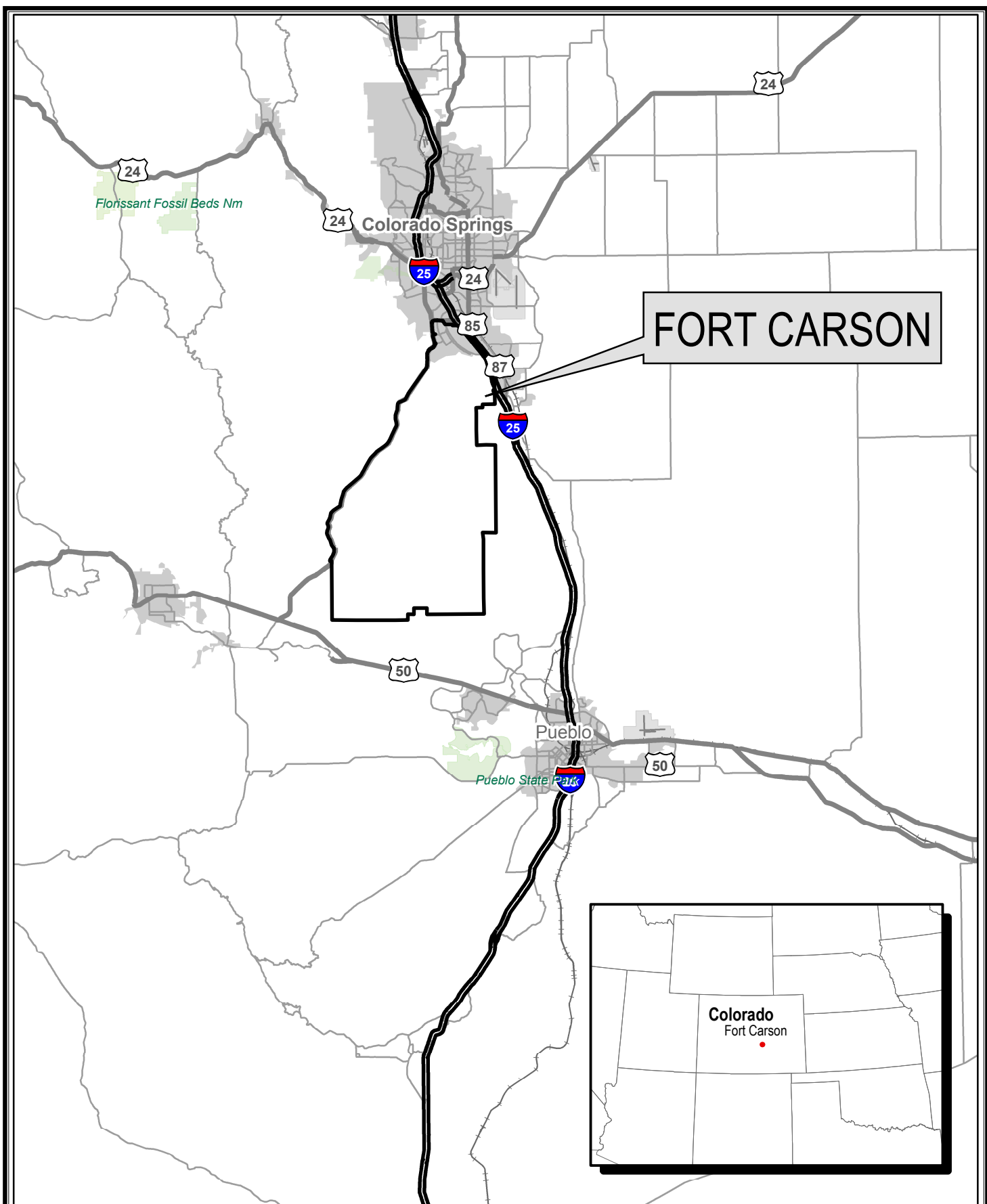
In support of the multi-year, synchronized, phased transformation approach, changes at Fort Carson include construction of:

- Infantry Brigade Combat Team (IN BCT) Complex
- Heavy Brigade Combat Team (Heavy BCT) Complex
- 4th Infantry Division (ID) Headquarters (HQ) Complex

Each of the project actions consists of construction of primary facilities (that is, various types of occupied buildings and organizational vehicle hardstands) and supporting facilities (for example, streets, private vehicle parking areas, supporting utilities, and landscaping). Details of the proposed action are provided in Section 2.1. Additional projects are planned in later years under AMF, IGPBS, and BRAC; however, these projects are currently not sufficiently defined to permit environmental analysis and will be addressed in a forthcoming BRAC Environmental Impact Statement (EIS).

1.2 PURPOSE AND NEED FOR PROPOSED ACTION

The proposed action, as detailed in Section 2.0, is to begin construction of operational and support facilities by 2006 for forces that will be stationed at Fort Carson. The purpose and need for this action is to support initial elements of BRAC initiatives, as well as of the long-term transformation planning process, by facilitating the efficient relocation of forces from Fort Hood, Texas and Korea to Fort Carson, Colorado, in accordance with the Programmatic EIS and the ROD.



Legend

 Installation Boundary

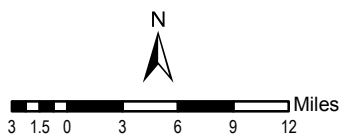


Figure 1-1
Location Map
Construction of FY06 Facilities
Fort Carson, Colorado

As a result of AMF, IGPBS, and BRAC, additional combat and supporting forces have been assigned to Fort Carson. Existing facilities at Fort Carson are inadequate to permanently house these forces and new facilities must be secured. Although existing facilities at Fort Carson (including those that require remodeling) would be used to the extent practicable to accommodate the increased population, the majority of the operations and support facilities that comprise the proposed action would require new construction. If the proposed action were not implemented, the Army would be unable to provide facilities to maintain troops stationed at Fort Carson as a result of IGPBS or BRAC, and would not meet the Army's readiness or rapid response objectives.

1.3 SCOPE OF ANALYSIS

This EA has been developed in accordance with the National Environmental Policy Act of 1969 (NEPA) and implementing regulations issued by the President's Council on Environmental Quality (CEQ) and the Army. Its purpose is to inform decision-makers and the public of the likely environmental consequences of the proposed action and alternatives.

This EA identifies, documents, and evaluates the effects of constructing facilities at Fort Carson. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the proposed and alternative actions, and has identified relevant beneficial and adverse effects associated with the actions. The proposed action and alternatives, including the no action alternative, are described in Section 2.0. Conditions existing in 2005 are considered to be the baseline conditions against which the proposed action is compared and are described in Section 3.0. The expected effects of the proposed action, also described in Section 3.0, are presented immediately following the description of baseline conditions for each environmental resource. Section 3.0 also addresses the potential for cumulative effects, and mitigation measures are identified where appropriate. Section 4.0 presents the conclusions of the analyses.

This EA is focused on construction activities to commence in FY06 as planned under AMF, IGPBS, and BRAC. Preparation of a follow-on EIS will address additional BRAC actions and the permanent stationing of troops at Fort Carson is planned for 2006.

1.4 AGENCY AND PUBLIC PARTICIPATION

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having an interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are given the opportunity to comment on this EA.

Public participation opportunities with respect to this EA and decision-making on the proposed action are guided by 32 Code of Federal Regulations (CFR) Part 651. Upon completion, the Final EA will be available to the public for 30 days, along with a Draft Finding of No Significant Impact (FNSI). At the end of the 30-day public review period, the Army will consider all comments submitted by individuals, agencies, or organizations on the proposed action, EA, or Draft FNSI. As appropriate, the Army can execute the FNSI and proceed with implementation of the proposed action. If it is determined prior to issuance of a Final FNSI that implementation of the proposed action would result in significant impacts, the Army will publish in the *Federal Register* a Notice of Intent to prepare an EIS. Appendix A is reserved for agency correspondence and any comments that may be received on the Draft EA.

1.5 *LEGAL FRAMEWORK*

A decision on whether to proceed with the proposed action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, Fort Carson is guided by relevant statutes (and their implementing regulations) and Executive Orders (EO) that establish standards and provide guidance on environmental and natural resources management and planning. These include, but are not limited to, the following:

- Clean Air Act
- Clean Water Act
- Noise Control Act
- Endangered Species Act
- Migratory Bird Treaty Act
- National Historic Preservation Act
- Archaeological Resources Act
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12088, Federal Compliance with Pollution Control Standards
- EO 12580, Superfund Implementation
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- EO 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition
- EO 13123, Greening the Government Through Efficient Energy Management
- EO 13148, Greening the Government Through Leadership in Environmental Management
- EO 13175, Consultation and Coordination with Indian Tribal Governments
- EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds

SECTION 2.0

PROPOSED ACTION AND ALTERNATIVES

This section presents information on the proposed action and alternatives. The proposed action is described in Section 2.1, and alternatives to the proposed action are discussed in Section 2.2. The no action alternative is presented in Section 2.3. The proposed action described in Section 2.1 is Fort Carson's preferred alternative.

2.1 PROPOSED ACTION

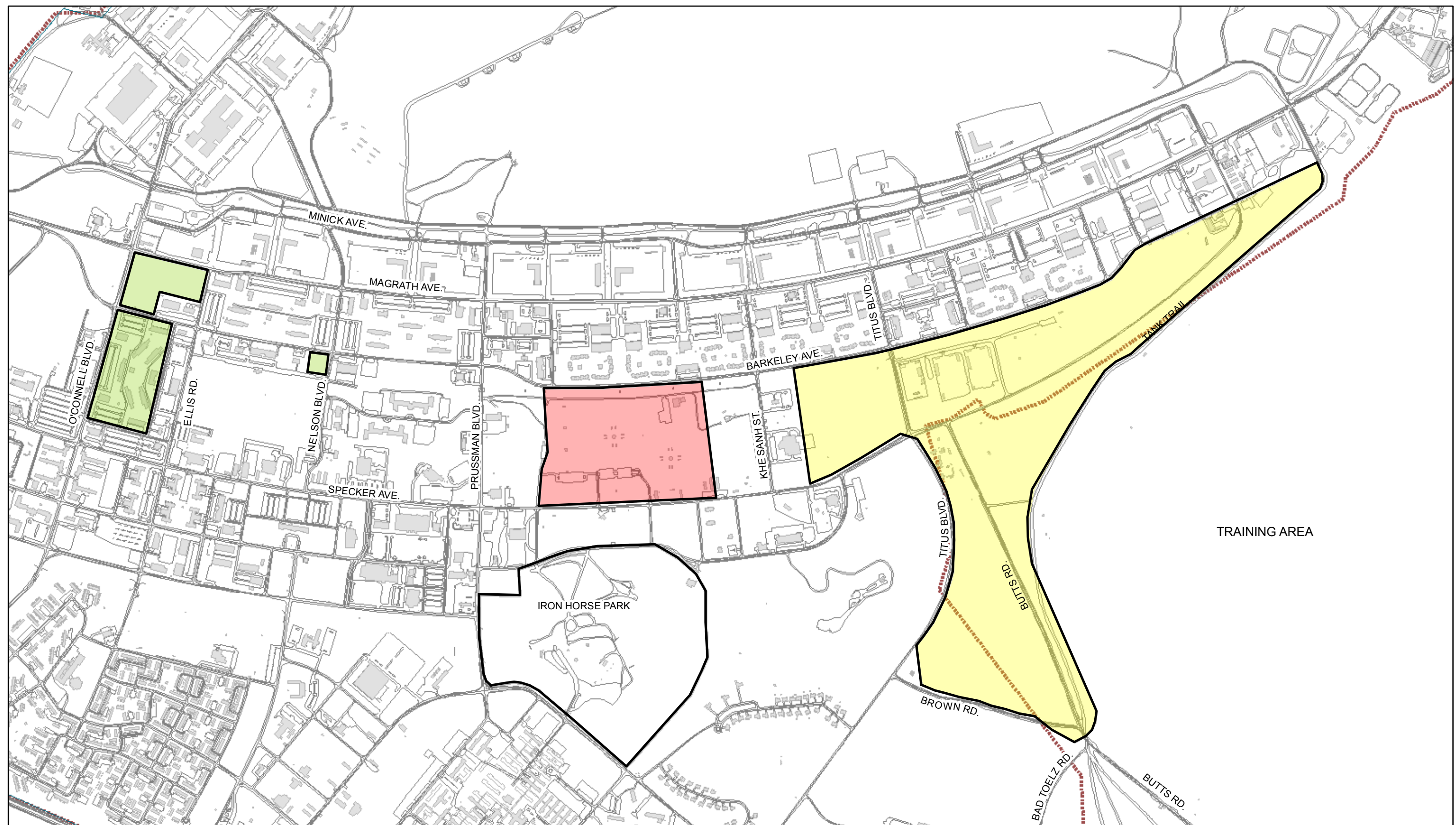
Fort Carson proposes three construction projects on Post representing 123 acres of construction within a total project area of 388 acres. Construction of recreational facilities in Iron Horse Park to replace facilities lost as a result of construction will be addressed in the EIS for BRAC actions. All construction would occur within or immediately adjacent to the cantonment area (see Figure 2-1). The projects would provide facilities for the IN BCT, Heavy BCT, and 4th ID HQ Complexes. The following characteristics would be common to all projects:

- Construction includes connection to the energy monitor and control system, installation of an intrusion detection system, and a fire protection/alarm system.
- Facilities would be built to meet the Gold level as indicated by the Sustainable Project Rating Tool. The Gold level is the second highest rating that can be achieved and is required by Army policy (Department of the Army, 2003).
- Appropriate facilities would be built to comply with requirements under the Americans with Disabilities Act.
- Motor pools would include wash racks.
- An industrial wastewater collection system would be constructed to connect the motorpools with the existing industrial wastewater treatment plant (IWTP).
- Project design will include post-construction stormwater controls designed to prevent offsite impacts from stormwater runoff.
- Recreational facilities would be constructed in Iron Horse Park to replace those lost to construction of the new complexes.
- Construction procedures would be implemented to mitigate impacts to migratory birds.
- Supporting facilities would include site utilities, electric service, walks, curbs and gutters, parking, access roads, storm drainage, information systems, landscaping, and site improvements.
- Anti-terrorism/force protection would be provided by constructing structures to resist progressive collapse, installing special windows and doors, and incorporating site measures (for example, setbacks and landscaping allowing line of sight).
- Heating and air conditioning would be provided by self-contained units.

Construction for the three projects under the proposed action is scheduled to commence in March 2006 and continue through 2010.

2.1.1 IN BCT Complex

This project would construct a new IN BCT Complex on Post. The primary facilities would include those listed in Table 2-1 (Form 1391, No. 63729, dated 1 September 2005).



- Legend**
- IN BCT Complex
 - Heavy BCT Complex
 - 4th ID HQ Complex
 - Approximate Boundary of Iron Horse Park
 - ▬ Cantonment Area Boundary

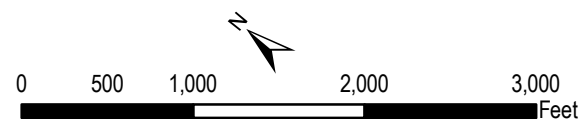


Figure 2-1
Proposed Action Locations
Construction of FY06 Facilities
Fort Carson, Colorado

Under the proposed action, approximately 25 acres of new facilities and associated infrastructure would be constructed. The site proposed for the new dining facility is currently undeveloped and demolition would not be required. The softball field and adjacent running track currently located on the corner of O’Connell Boulevard and Magrath Avenue would be relocated to Iron Horse Park. Construction for the IN BCT Complex would occur within a total footprint of approximately 36 acres (see Figure 2-1).

Table 2-1
Proposed Construction of IN BCT Complex
Construction of FY06 Facilities at Fort Carson, Colorado

Components of the Proposed Action	Square Feet
Brigade HQ Building	30,400
Battalion HQ Building (s)	96,036
Vehicle Maintenance Shop (s)	130,504
Organizational Vehicle Parking	753,966
Organizational Storage Building (s)	66,990
Dining Facility	30,257

Note: The square footage indicates an estimated maximum floor space. Buildings with multiple stories would have smaller total footprints.

2.1.2 Heavy BCT Complex

This project would construct a new Heavy BCT Complex on Post. The primary facilities would include those listed in Table 2-2 (Form 1391, No. 64276, dated 12 September 2005).

Under the proposed action, approximately 78 acres of new facilities and associated infrastructure would be constructed. Construction would occur within a total footprint of approximately 282 acres (see Figure 2-1).

Table 2-2
Proposed Construction of Heavy BCT Complex
Construction of FY06 Facilities at Fort Carson, Colorado

Components of the Proposed Action	Square Feet
Brigade HQ Building	30,400
Battalion HQ Building (s)	96,036
Company Operations Building (s)	392,434
Enlisted Barracks	561,444
Vehicle Maintenance Shop (s)	204,888
Organizational Vehicle Parking	2,025,000
Organizational Unit Storage	66,990
Dining Facility	30,257

Note: The square footage indicates an estimated maximum floor space. Buildings with multiple stories would have smaller total footprints.

The facilities would be constructed in an undeveloped area immediately adjacent to the southeastern portion of the cantonment area. The following activities would be conducted as part of the proposed action:

- Realignment of Brown Road north of the intersection with Bad Toelz Road and Butts Road, including realignment of a ditch parallel to Brown Road

- Relocation of Specker Avenue bridge that crosses I Ditch (also known as Clover Ditch)
- Construction of new barracks in the area between Specker Avenue and the existing Benham-Blair Barracks to the east along Barkeley Avenue
- Permanent closure of the portion of Butts Road located between Bad Toelz Road and Specker Avenue
- Relocation of 9,000 feet of an existing gravel tank trail paralleling Butts Road between the intersections with Bad Toelz Road and Specker Avenue (The tank trail would be moved 100 feet to the southeast.)
- Construction of an additional concrete tank trail parallel to the existing one
- Demolition of a grenade practice training range used for training with blank practice grenades
- Demolition of a concrete slab located at the site of a former motor pool
- Construction of six motor pools along the southeast side of Butts Road and west of Specker Avenue
- Construction of an industrial wastewater collection system to connect the motorpools with the existing industrial wastewater treatment plant (IWTP).
- Relocation of portions of I Ditch (Clover Ditch) along Barkeley Avenue
- Mitigation of potential impacts to prairie dog habitat and waters of the United States, including wetlands, as part of the proposed action (see Section 3 for detailed discussion). Prairie dog/burrowing owl habitat is located southeast of Butts Road. Waters of the United States potentially occur in the following locations:
 - Unnamed Ditch along Brown Road
 - Isolated wetland southeast of the intersection of Butts Road and Specker Avenue
 - I Ditch (Clover Ditch) (bridge replacement and realignment, as listed above)
- Mitigation of potential impacts, if necessary, to corrective action sites (that is, areas formerly used as motor pools)

2.1.3 4th ID HQ Complex

This project would construct a new 4th ID HQ Complex on Post. The facilities listed in Table 2-3 (according to Form 1391, No. 64277, dated 1 September 2005) would be constructed. Demolition of an existing sports complex, which includes a maintenance facility and warehouse, softball and soccer fields, and two concession facilities (Buildings 1830 and 2030), would be required to accommodate the new facilities. The recreational facilities would be replaced with a sports complex to be built in undeveloped areas of Iron Horse Park. The park could also be used for stormwater management to accommodate runoff from the newly constructed facilities. Furthermore, potential impacts, if any, to corrective action sites (that is, sites with contaminated soil) located at the proposed action site would be mitigated. Under the proposed action, approximately 20 acres of new facilities and associated infrastructure would be constructed.

The site boundaries are Khe Sanh Street, Barkeley Avenue, and Specker Avenue. The northwestern boundary would run parallel to and southeast of Prussman Boulevard. Construction would occur within a total footprint (shown on Figure 2-1) of approximately 70 acres.

Table 2-3
Proposed Construction of 4th ID HQ Complex
Construction of FY06 Facilities at Fort Carson, Colorado

Components of the Proposed Action	Square Feet
Command HQ Building	179,310
Battalion HQ Building	12,852
Company Operations Building	75,872
Enlisted Barracks	89,304
Vehicle Maintenance Facilities	37,200
Organizational Vehicle Parking	414,000
Organizational Unit Storage	17,150
Band Training Facility	12,480
Command Headquarter Heliport	12,000
Space for Relocatable Emergency Operations Facilities	30,000

Note: The square footage indicates an estimated maximum floor space. Buildings with multiple stories would have smaller total footprints.

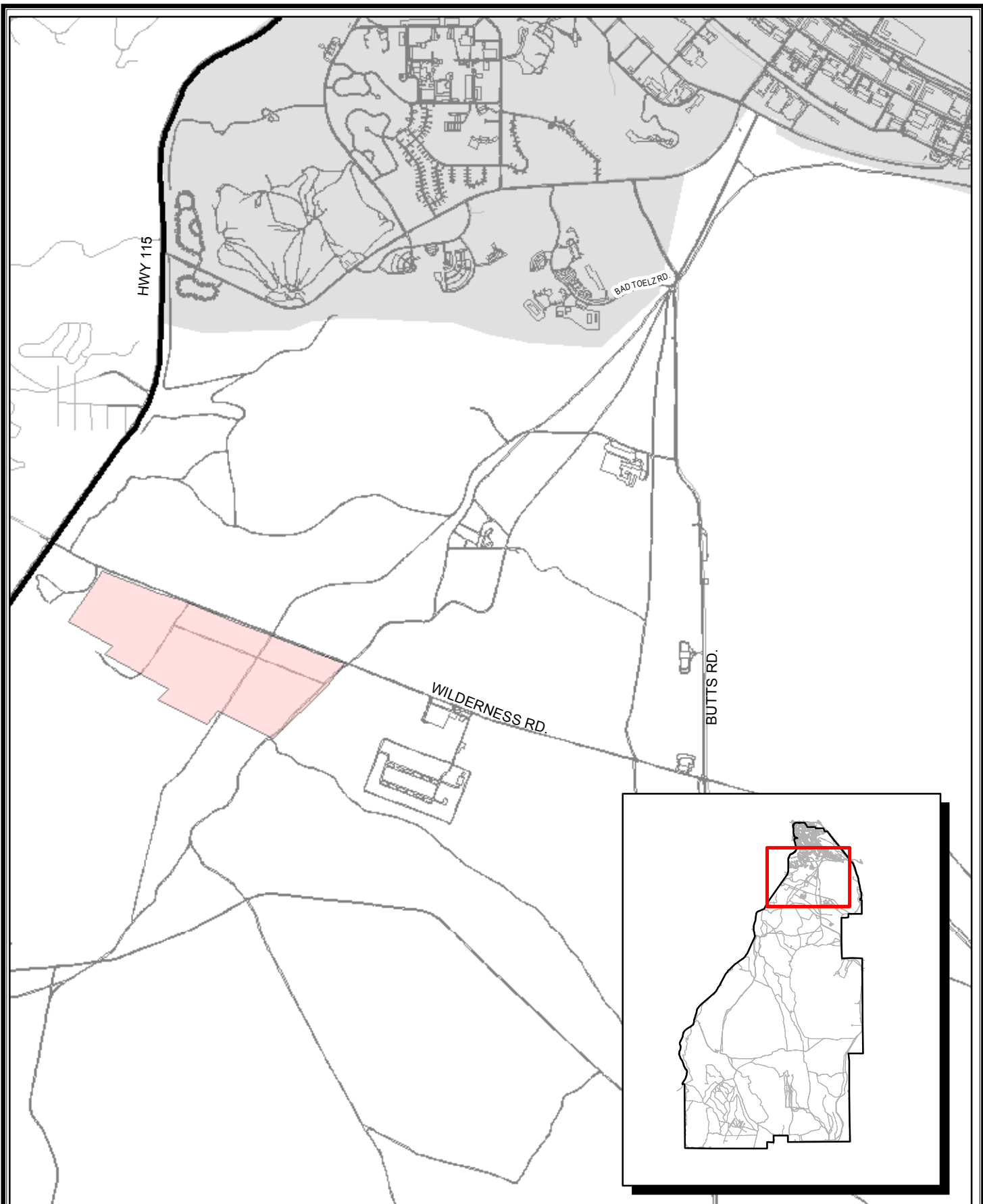
2.2 ALTERNATIVES

Alternatives may be framed in terms of meeting facilities requirements through means other than new construction (for example, renovation) or through new construction at alternative sites. Fort Carson has considered alternative sites for the proposed facilities; however, as a result of the number and size of additionally planned AMF and IGPBS projects, available open space in the cantonment area for new construction is limited. Potential alternatives to components of the proposed action are discussed below.

2.2.1 Heavy BCT and 4th ID HQ Complexes – Wilderness Road Area Alternative

A site on Wilderness Road is considered as an alternative location to be used by either the Heavy BCT or the 4th ID HQ Complexes (see Figure 2-2). A similar action has been previously proposed for this location and was analyzed in the *EA for Construction of Facilities at Fort Carson* (Fort Carson, 2005a). Therefore, the analysis for siting the Heavy BCT and 4th ID HQ Complexes at the Wilderness Road location is hereby incorporated by reference and will not be discussed further in this text. A summary of the potential environmental and socioeconomic impacts for construction at the Wilderness Road location for comparison with the other alternatives considered is provided in Table 4-1.

The Wilderness Road site is located downrange from the cantonment area, in the training range. Implementation of the alternative would require routing or installation of utility services (for example, gas, domestic and industrial wastewater, water supply, electricity, stormwater, and telephone) from the cantonment area or offsite locations to the site. The site is not adjacent to the cantonment area or existing operational support services (for example, medical services and vendors). Therefore, duplicate services would be built to accommodate personnel working at this alternative site. Biological and cultural resources surveys would be conducted as part of implementation of the alternative.



Legend

- Wilderness Road Area
- Installation Boundary
- Cantonment Area



0.0 0.1 0.2 0.3 0.4 0.5
Miles

Figure 2-2
Wilderness Road Area Alternative
Construction of FY06 Facilities
Fort Carson, Colorado

2.2.2 Heavy Brigade Motor Pools – Northeast of Minick Avenue

The motor pools for the Heavy BCT could be located northeast of Minick Avenue (approximately between Christie and Womack Streets if they crossed Minick Avenue). The alternative was dismissed as not practicable because of environmental impact and cost. Placing the motor pools at this location would result in impacts to a former landfill and extensive earthwork and handling of waste to provide level ground for facility hardstands. Therefore, this alternative is not retained for further discussion in this EA, but is included in the summary in Section 4.0.

2.3 NO ACTION ALTERNATIVE

Under the no action alternative, no facilities would be constructed or renovated to support the new units. This alternative is not viable because existing facilities on Fort Carson are not adequate for both currently assigned units and the additional units to be stationed under AMF and IGPBS. The no action alternative serves as a benchmark for evaluation of the potential effects of the proposed action and is discussed as such in this EA.

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SECTION 3.0

AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 INTRODUCTION

Fort Carson, the Mountain Post, is home to the 7th ID HQ. The vision for the 7th ID HQ is to train, mobilize, deploy, and sustain combat-ready, multi-component integrated forces, and provide a climate of cooperation and partnership with civilian and military neighbors. Fort Carson is a premier Warfighting Center, an effective power projection platform, and a responsive and efficient installation.

Fort Carson's primary mission tasks are to protect the force (that is, soldiers, civilian employees, family members, facilities, and equipment); train active and reserve component units, mobilize reserve component units; deploy, sustain, and redeploy active and reserve component units; provide a quality living and working environment for soldiers, families, employees and retirees; manage resources and protect the environment; and enhance community relationships and partnerships.

The following sections provide general descriptions of the physical and biological environment and regional socioeconomic conditions for the Fort Carson area. The consequences of the proposed action and no action alternatives follow the descriptions in each section.

3.2 LAND USE

3.2.1 Affected Environment

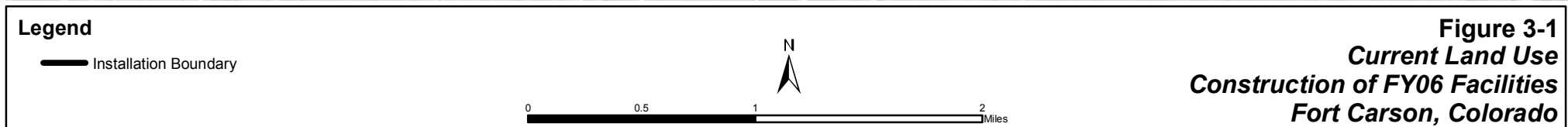
3.2.1.1 Regional Geographic Setting and Location

Fort Carson is located in central Colorado at the foot of the Rocky Mountains. The Installation is sited in El Paso, Fremont, and Pueblo Counties. Fort Carson covers 137,404 acres, and extends between 2 and 15 miles east to west and approximately 24 miles north to south. The cantonment area, located in the north, covers 5,752 acres. Fort Carson is bounded by Interstate 25 to the east and Colorado State Highway (SH) 115 to the west. Colorado Springs and Denver lie 8 miles and 75 miles, respectively, to the north. The City of Pueblo is located 35 miles south of the Fort Carson cantonment area.

3.2.1.2 Installation Land/Air Space Use

The existing land uses at Fort Carson are shown on Figure 3-1. Most of the industrial operations occur northeast of Minick Avenue, within the cantonment area. Housing, recreation, and community facilities are located northeast of Chiles Avenue.

Unimproved or open land located at Fort Carson consists of 96,201 acres and is used for live artillery practice, small arms practice, tank and Bradley Fighting Vehicle maneuver operations, and bivouac training (Fort Carson, 2005a). Air operation ranges on Fort Carson consist of the Air Burst Range and Butts Army Airfield.



Existing land use within the area of the IN BCT Complex consists of barracks located between O’Connell Boulevard and Ellis Road, a softball field and running track located between Magrath and Barkeley Avenues, and an undeveloped parcel on the corner of Nelson and Barkeley Avenues. The land use category for these areas is barracks/administrative and outdoor recreation.

Existing land use within the area of the Heavy BCT Complex is categorized as training, open space, and outdoor recreation. The area is currently undeveloped; however, portions of the site have been previously developed and were used for motor pools and as a grenade practice training range (non-explosive use only). Butts Road runs the length of the site and is paralleled by a tank trail.

Existing land use within the area of the 4th ID HQ Complex is recreational, consisting of a sports complex that includes eight softball fields, three soccer/football fields, four tennis courts, and associated support facilities. Land use within the proposed area for the 4th ID HQ Complex is outdoor recreation. These existing recreational facilities would be moved to Iron Horse Park, located to the west of the proposed 4th ID HQ Complex. Iron Horse Park currently consists of open space and facilities to support outdoor recreation activities such as softball. A wetland runs north to south through the center of the park. The two sides of the park are connected by an existing footbridge.

3.2.2 Consequences

3.2.2.1 Proposed Action

Construction of facilities within the IN BCT Complex would not result in significant changes in land use (see Table 3-1). The majority of the site for the IN BCT Complex is currently comprised of barracks and is categorized as barracks/administrative land use. The remaining portion between Magrath and Barkeley Avenues is recreation areas. The proposed dining facility site is located in an area classified as barracks/administrative and is currently vacant. Overall, these proposed changes in land use are compatible with surrounding land use in the cantonment area and do not represent a significant change to land use.

Table 3-1
Land Use Summary
Construction of FY06 Facilities at Fort Carson, Colorado

Proposed Project	Land Use Without Project	Land Use With Project
IN BCT Complex	Barracks/Administration, Recreation.	Barracks/Administration
Heavy BCT Complex	Open space, Outdoor Recreation, Training	Barracks/Administration, Maintenance, Community Facility, Training
4 th ID HQ	Recreation	Barracks/Administration, Maintenance, Training

The Heavy BCT Complex is primarily undeveloped (see Table 3-1) and functions as a buffer between the downrange training areas and the cantonment area. The land use is classified as open space, outdoor recreation, and training. The proposed action would result in the conversion of this land to the following land use categories: barracks/administrative (Brigade HQ, Battalion HQ, and Company Operations Building, and Enlisted Barracks), maintenance (Vehicle Maintenance Shop, Organizational Vehicle Parking, and the Organizational Unit Storage), and community facility (Dining Facility). Additionally, a portion of the current tank trail would be relocated and a second paved tank trail would be constructed.

Overall, the conversion of open land to barracks/administrative, maintenance, and community facilities is consistent with current land use inside the cantonment area and does not represent a significant loss of open space when compared with the large amounts of open space at Fort Carson. However, efforts should be made to ensure that the safety zone between the cantonment area and training areas is enforced to ensure safety and to provide an appropriate noise buffer.

Existing land use within the area of the 4th ID HQ Complex is outdoor recreation, consisting of a softball complex, football field, and associated maintenance facilities (see Table 3-1). The proposed action includes the conversion of approximately 70 acres of recreation area to administrative/barracks (Command HQ Building, Battalion HQ Building, Company Operations Building, HQ Heliport, Relocatable Emergency Operations Space, and Enlisted Barracks), maintenance (Vehicle Maintenance, Organizational Vehicle Parking, and Organizational Unit Storage), and training (Band Training Area). The proposed site is located in the center of the cantonment area and is adjacent to similar development. Therefore, the proposed land uses are compatible with the surrounding area. The existing recreation areas would be relocated to Iron Horse Park where they would be collocated with existing recreation areas.

3.2.2.2 *No Action Alternative*

There would be no changes in land use under the no action alternative.

3.3 *AIR QUALITY*

3.3.1 *Affected Environment*

The Clean Air Act established programs and permitting processes designed to protect and improve air quality. Section 176(c)(1) contains the legislation that mandates the general conformity rule. General conformity applicability analysis requires quantification of direct and indirect, construction, and operation emissions for the project, and comparison of these emissions to emission baseline levels in attainment and maintenance areas. This EA covers only the construction activities planned for FY06; therefore, the conformity analysis covers only those emissions.

3.3.1.1 *Ambient Air Quality Conditions*

Fort Carson is in an attainment area for all criteria pollutants but carbon monoxide (CO) for which Colorado Springs achieved attainment in October 1999. As part of the redesignation, the Colorado Springs urban area, including the Fort Carson cantonment area, is under a maintenance plan until 2019 to demonstrate compliance with the CO standard. Therefore, CO is the only pollutant of concern for the general conformity applicability analysis.

3.3.1.2 *Air Pollutant Emissions*

Air pollutant emissions are generated at the Installation mainly through the combustion of fossil fuels in equipment such as boilers and motorized vehicles. Combustion products include mainly CO, nitrogen oxide (NO_x), sulfur dioxide (SO₂), and particulate matter (both as PM₁₀ and PM_{2.5}). Prescribed burns are a large source of CO. Lesser contributions of all these emissions come from coating activities, gasoline filling stations, chemical usage, fuel storage and fueling operations, landfill related emissions, military and fire training. Pollutants from these activities include those listed above, volatile organic compounds (VOCs), and various hazardous air pollutants. Travel by tanks and other military vehicles on unpaved roads is the largest generator of PM.

Fort Carson is considered a Title V major source due to the potential to emit more than 100 tons per year for the following criteria pollutants: particulate matter, VOCs, CO, and NO_x, which would be emitted from stationary equipment such as boilers, generators, and parts cleaners. Significant net increases of these pollutants would subject the Installation to Prevention of Significant Deterioration review requirements (40 CFR 52.21), which are implemented by the State of Colorado Air Quality Control Commission, Regulation 3, Part D.

3.3.2 Consequences

3.3.2.1 Proposed Action

During construction, air quality impacts could occur from wind-blown dust (that is, PM) and from dust generated by construction equipment moving on disturbed ground. PM can contribute to respiratory health problems and create an inhospitable working environment. Deposition on surfaces can be a nuisance to those living or working downwind. Fort Carson has a state-mandated Dust Control Management Plan that is enforceable and outlines various control measures.

Measures implemented to reduce or eliminate fugitive dust emissions could include compacting disturbed soil, providing vegetative cover and watering (including watering with chemical dust suppressant), and discontinuing work if winds exceed 30 miles per hour.

No substantial changes in air quality from baseline conditions are expected with implementation of the proposed action. Fugitive dust would increase in the immediate area during construction, but impacts would be temporary and less than significant if control measures are implemented sufficiently. Dust abatement measures would help limit the direct and secondary creation of dust.

Construction emissions are expected to occur as a result of engine exhaust from added vehicle trips of construction workers and construction equipment, including bulldozers, graders, back-hoes, hoe-rams, excavators, dump trucks, and cement trucks. Emissions would primarily consist of NO_x, PM, CO, and VOCs. Construction-related impacts are expected to be confined to the construction site area and limited to the duration of the construction activities. Construction/land development permits and associated Fugitive Dust Control Plans would be required by both El Paso County Department of Health and Environment and the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division because the project would exceed county and state threshold limits of 1 acre of disturbed land for the county and more than 25 acres or 6 months duration of disturbance for the state. Potential short-term impacts are expected to be less than significant.

The footprint of the proposed action is located in the CO maintenance area. General conformity was evaluated for the proposed action according to the requirements of 40 CFR 93, Subpart B. The requirements of this rule are not applicable to this project because emissions are below the conformity threshold value established at 40 CFR 93.153(b) of 100 tons per year (tpy) of CO and the project is not considered regionally significant under 40 CFR 93.153(i). See Appendix B Draft Fort Carson General Conformity Applicability Analysis for details. Consequently, no further general conformity determination is required.

3.3.2.2 No Action Alternative

Under the no action alternative, current air quality conditions would not change and no impacts to air quality would be expected.

3.4 NOISE

3.4.1 Affected Environment

Sources of noise associated with Fort Carson include military training operations, aircraft, and traffic. The primary sources of noise are the firing of weapons and the operation of military aircraft. Other sources of noise include motor vehicle traffic (for example, cars, trucks, and tracked vehicles) and construction activities (Fort Carson, 2005a).

The fundamental measure of sound levels is expressed in decibels (dB) using a logarithmic scale. For determination of impacts to human receptors, noise measurements are weighted to increase the contribution of noises within the normal range of human hearing and decrease the contribution of noises outside the normal range of human hearing. For humans, this is considered an A-weighted scale (dBA). When sound pressure doubles, the dBA level increases by 3. Psychologically, most humans perceive a doubling of sound as an increase of 10 dBA. Sound pressure decreases with distance from the source. Typically, the amount of noise is halved as the distance from the source doubles (U.S. Environmental Protection Agency [EPA], 1974; Danish Wind Industry Association, 2004). Noise is generally defined as sound that is undesirable for the following reasons:

- It is intense enough to damage hearing;
- It interferes with speech communication and sleep; or
- It is annoying.

Applicable sound quality criteria for Fort Carson are provided in the Fort Carson Installation Environmental Noise Management Plan (U.S. Army Center for Health Promotion and Preventive Medicine, 1999). This plan, which is currently under revision, outlines acceptable land uses throughout the cantonment area based on noise contours (Fort Carson, 2002a). The plan describes the Installation Compatible Use Zone (ICUZ) program and defines locations with noise sensitive land uses that are exposed to generally unacceptable noise levels and aircraft accident potential. Noise sensitive land uses include, but are not limited to, residences, schools, medical facilities, and churches. Three noise zones (NZ) are defined, as described below.

- **NZ I.** The day-night sound level is less than 65 dBA.
- **NZ II.** The day-night sound level is between 65 and 75 dBA. Land use within the NZ II should be limited to industrial, manufacturing, transportation and resource production.
- **NZ III.** The day-night sound level is greater than 75 dBA for aircraft, vehicle, and small arms range noise. The noise level within NZ III is considered so severe that noise sensitive land uses should not be considered therein.

The portion of the cantonment area where the proposed project would occur is defined as NZ 1, which is suitable for noise sensitive land use activities. Figure 3-2 shows some common activities and their corresponding dB levels.

3.4.2 Consequences

3.4.2.1 Proposed Action

Typical demolition and construction related noise depends on duration of construction, equipment used, and type of activities. Demolition would be accomplished using a combination of manual labor and heavy equipment. Building interiors would be stripped by hand and then heavy equipment would be used to physically collapse buildings and to remove waste material. Demolition would not include use of explosives.

Common Outdoor Sound Levels

Common Indoor Sound Levels

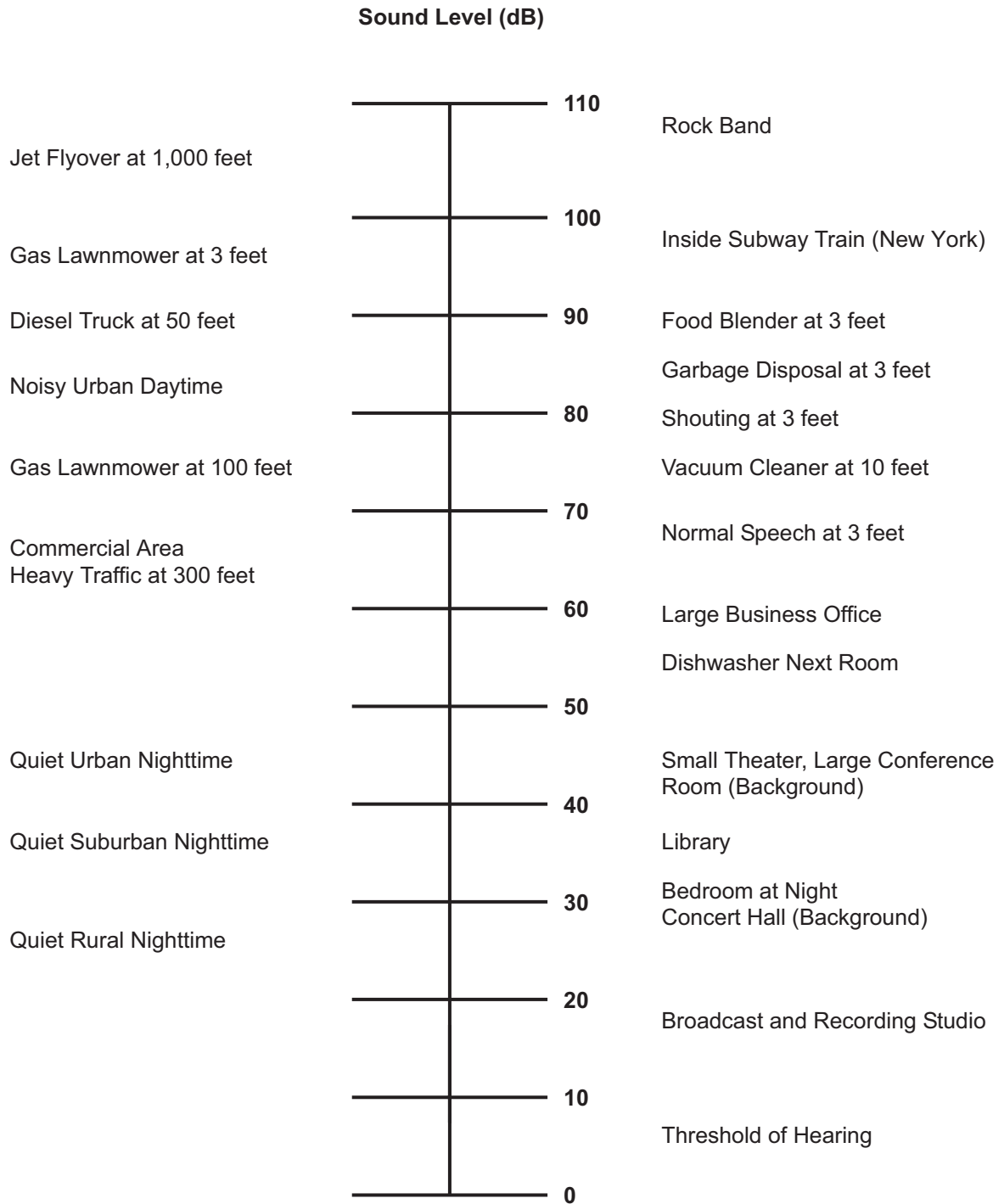


Figure 3-2
Comparative Sound Levels
Construction of FY06 Facilities
Fort Carson, Colorado

Construction activities are anticipated to include the following general elements site preparation, concrete pouring, steel erection, mechanical and cleanup (EPA, 1971; Barnes et al., 1977; Miller et al., 1978).

Heavy equipment used for construction activities (Table 3-2) typically emits noise in the 86 to 94 dB range. Removal of paving materials would require a hoe-ram excavator or similar equipment, which typically emits noise at noise levels of 80 to 105 dB due to the high frequency repetition of the cutting tool.

Table 3-2
Typical Heavy Equipment Used in Construction
Construction of FY06 Facilities at Fort Carson, Colorado

Equipment	Approximate Noise Level (dB Range)
Bulldozers	86 to 94
Graders	86 to 94
Backhoes	86 to 94
Hoerams	80 to 105
Excavators	86 to 94
Dump Trucks	86 to 94
Cement Trucks	86 to 94

Construction and demolition associated with the proposed action would be located in the cantonment area, which is an NZ I where noise levels should not exceed 65 dBA. However, during construction, noise would be generated in excess of 65 dBA. No receptors sensitive to noise (for example, family housing, hospitals, and threatened and endangered species) are situated adjacent to proposed construction/demolition sites. Several buildings are located within 100 feet of the site boundaries, including the following:

- Six non-residential buildings along the southeast boundary of the proposed IN BCT Complex near Ellis Road
- Barracks complex at the northeastern boundary of the proposed 4th ID HQ Complex bordering Barkeley Avenue
- Barracks complex at the northeastern boundary of the proposed Heavy BCT Complex bordering Barkeley Avenue
- Building located within 100 feet of the northwest boundary of the proposed Heavy BCT Complex site

Potential impacts to occupants of nearby buildings would be similar at all proposed action locations. The buildings would provide a measure of sound attenuation, which would combine with the distance from the noise source to reduce noise exposure to building occupants by 10 to 15 dBA compared to the noise source. Occupants would experience construction-related noise ranging from 70 to 90 dBA. This would not pose a risk to hearing, but could constitute a nuisance to indoor workers in the area.

Direct exposure to non-construction personnel in project vicinities would be temporary and primarily limited to times when personnel would be traveling between vehicles and buildings or among buildings. Construction activities would be confined to daytime hours, further minimizing disturbance to sensitive residential areas at the most critical times (2000 to 0700 hours). Any impacts would be temporary and minor. Exposure to elevated sounds would be intermittent and for short durations. Noise levels experienced would not pose a risk to hearing, but would be at nuisance levels.

Personnel stationed at outdoor posts in the vicinity of construction may be exposed to sound levels that could damage hearing. Sound pressure decreases with distance from the source. Typically, the amount of noise is reduced by half as the distance from the source doubles (Danish Wind Industry Association, 2004). For any outdoor posts near the construction and demolition area, the hearing risk would be analyzed and personnel would be provided with hearing protection if warranted by the exposure noise levels.

Noise exposure would overlap with normal workday activities. Noise generated by construction activities would be temporary and localized for non-construction personnel. Construction workers would use appropriate hearing protection to prevent damage to hearing (Danish Wind Industry Association, 2004). Therefore, impacts would be considered less than significant.

3.4.2.2 *No Action Alternative*

Implementing the no action alternative would not result in any construction activities; therefore, no noise impacts would occur.

3.5 *GEOLOGY AND SOILS*

3.5.1 *Affected Environment*

3.5.1.1 *Geologic and Topographic Conditions*

The majority of Fort Carson lies at elevations between 5,500 and 6,000 feet above mean sea level. Geologic units at Fort Carson range in age from the Quaternary period (one million years before present to recent) to the Pennsylvanian period (200 to 250 million years before present). During the Quaternary period both consolidated and unconsolidated sediments were deposited. Unconsolidated sediments consist primarily of fluvial and alluvial sands, silts and gravels, and wind-deposited silts and sands. Consolidated sediments include shale, limestone, hard sandstone, siltstone, claystone, and conglomerate sandstone and shale (Fort Carson, 2002a).

Three main fault lines exist within the region of Fort Carson — the Oil Creek, Ute Pass, and Rampart Range faults. The region is rated Zone 1 for earthquake potential on a scale of zero to four, with a rating of four having greatest earthquake potential. Small earthquakes are known to occur in the region with generally undetectable effects (Fort Carson, 2002a).

3.5.1.2 *Soils*

Thirty-four soil categories and 65 soil associations have been recognized on Fort Carson (Fort Carson, 2002a). Soils at the IN BCT Complex, 4th ID HQ Complex, and Iron Horse Park include Nunn Clay Loam and Razor-Midway Complex. Soils at the Heavy BCT Complex include Heldt Clay Loam, Nunn Clay Loam, Razor-Midway Complex, and Schamber-Razor Complex.

The soils occurring on the Installation contain a high shrink-swell potential. Shrink-swell potential is the loss or gain of water in soil, which results in the potential for a change in soil volume, with soils increasing in volume with increasing moisture.

According to the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service map for El Paso County (Larsen, 1979), prime farmland designations do not occur on Fort Carson.

3.5.2 Consequences

3.5.2.1 Proposed Action

Minor elevation changes would result from site grading and preparation. However, these minor changes would not constitute a significant change to topography on Fort Carson. There would be no effects to the underlying geology of Fort Carson resulting from implementation of the proposed action.

The proposed action would result in less than significant impacts to soils on Fort Carson. Disturbance to soils would generally occur during demolition and construction. Heavy equipment would be used to demolish facilities (including the recreational facilities existing at the site proposed for the 4th ID HQ Complex), clear and grade sites, move and compact soils, and remove debris in construction and paving areas. The estimated area to be disturbed for construction of the IN BCT, Heavy BCT, and 4th ID HQ Complexes would be 388 acres, with 123 acres within the facility construction footprints. The additional area would comprise landscaping, parking, and material staging areas. To reduce impacts, the disturbed area would be kept to the minimum to complete the work.

Sedimentation and erosion control measures would be implemented in accordance with the stormwater pollution prevention plan (see Section 3.7) to minimize erosion of onsite and surrounding soils. Disturbed land would be prepared and seeded in accordance with Fort Carson landscaping standards.

All soils within the areas proposed for the IN BCT, Heavy BCT, and 4th ID HQ Complexes and Iron Horse Park have shrink-swell potential, which can result in problems with building foundations and stability. Facilities, including buildings and roads, would be engineered to address these soil properties, as existing buildings on Fort Carson have been designed. Proper engineering design would eliminate future foundation and stability issues. The potential geotechnical impacts from building on these soils would be less than significant.

The CDPHE has issued a draft regulation (6 CCR 1007-2; Part I Regulations Pertaining to Solid Waste Sites and Facilities) which requires asbestos management procedures to be in place in areas where there is a reason to suspect that asbestos may be a concern, or in those areas where asbestos was not suspected but where it has been identified during disturbance. At this time, the regulation has not been formally adopted by the State of Colorado. However, prior to construction, Fort Carson will comply with all applicable soil regulations.

3.5.2.2 No Action Alternative

Under the no action alternative, no land clearing, demolition, or construction would occur. Therefore, no impacts to geology, soils, or topography would result from the no action alternative.

3.6 WATER RESOURCES

3.6.1 Affected Environment

Fort Carson is located in the Arkansas River basin; and creeks and drainages form smaller watersheds. The northern and southern portions of the Installation are located in the Fountain Creek and Cripple Creek watersheds, respectively (Pikes Peak Area Council of Governments, 2003). The southern portion of the Installation would not be affected by the alternatives discussed in this EA and is not further described.

Surface water within the Installation generally flows from northwest to southeast. The intermittent streams of Rock Creek and Little Fountain Creek cross the Installation, converge, and drain into Fountain Creek approximately 10 miles east of Fort Carson (Pikes Peak Area Council of Governments, 2003).

While no creeks are present in the cantonment area, it contains several drainage ditches (Figure 3-3). The three primary ditches are the B Ditch in the northeast, the centrally located I Ditch (Clover Ditch), and an unnamed ditch in the south. The 100-year floodplain is associated with these three ditches; however, flooding is rare and not severe.

Groundwater at Fort Carson exists in both alluvial and bedrock aquifers. Alluvial aquifers are formed from unconsolidated deposits of stream alluvium that are moderately permeable. The alluvial aquifers can provide well yields from 10 to more than 100 gallons per minute (gpm) (Leonard, 1984). The primary bedrock aquifer at Fort Carson is the Dakota-Purgatoire aquifer, which can yield 10 gpm, but local fracturing can increase permeability and yield more than 200 gpm. Precipitation and stream flow infiltration recharge the bedrock aquifers (Leonard, 1984).

The quality of surface and groundwater on Fort Carson is good (Fort Carson, 2002a). Neither surface water nor groundwater is a source of domestic water on Fort Carson.

Fort Carson retains 50 surface and subsurface water rights as specified by the Colorado Division of Water Resources. Of the 34 surface water rights, 20 are surface diversion ditches and 14 are reservoir storage rights. The 16 subsurface water rights include 9 wells that are currently installed and 7 wells that are classified as future wells, which would not be installed until required (Fort Carson, 2002a). Water rights directly support the training mission by ensuring adequate water supplies for the support and rehabilitation of natural resources on Fort Carson and provide training capabilities and fire suppression.

3.6.2 Consequences

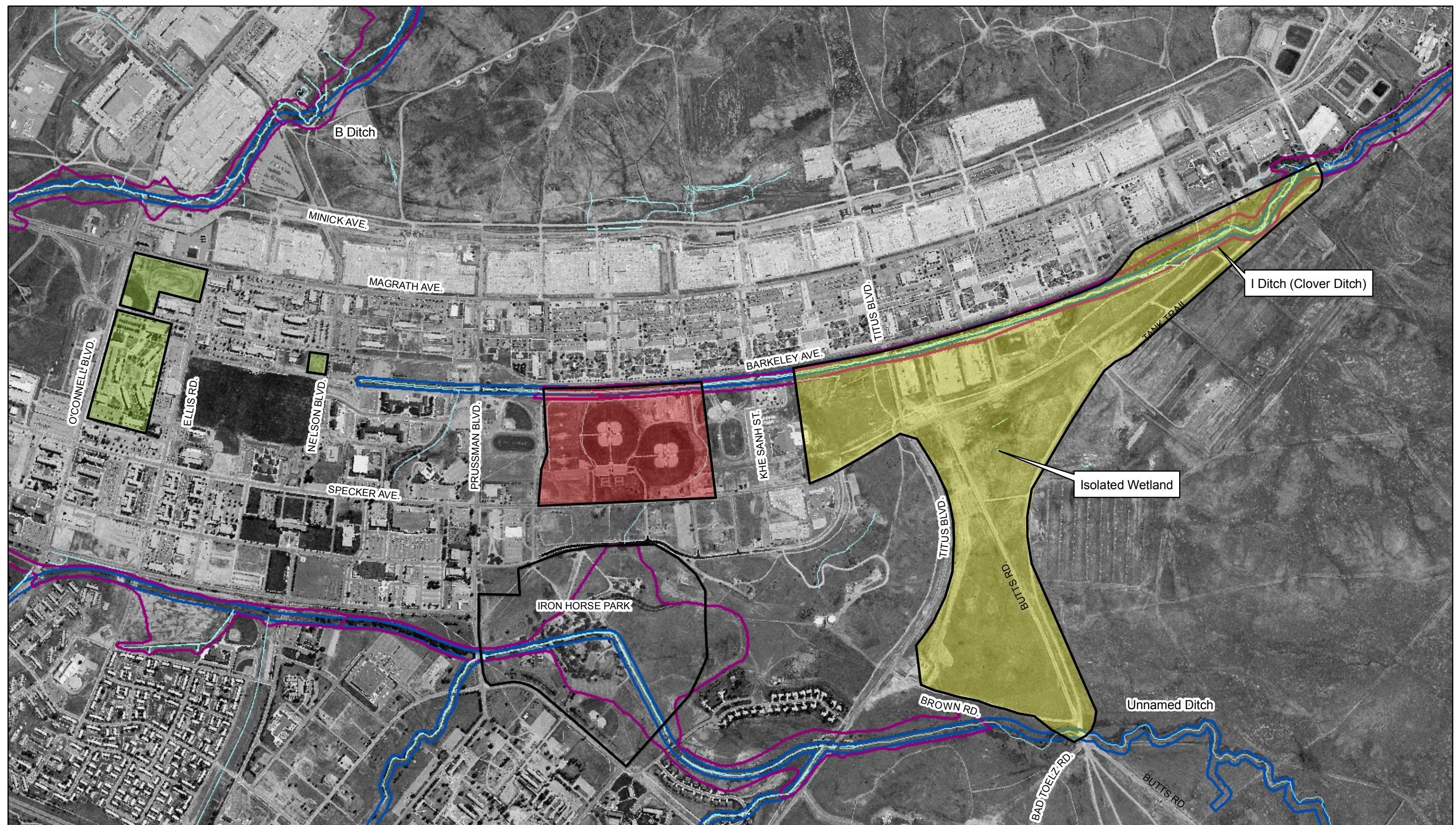
3.6.2.1 Proposed Action

Surface Water/Stormwater

In accordance with Army regulations, management plans have been established to protect water quality and quantity. Potentially significant impacts would result from implementation of the proposed action, such as during construction, if sediment or other pollutants were introduced to surface waters at levels that exceeded regulatory standards.

Up to 388 acres could be disturbed during construction. Construction would be phased, causing ground to be laid bare at different times, and would occur in noncontiguous parcels—up to approximately 36 acres for the IN BCT Complex, 282 acres for the Heavy BCT Complex, and 70 acres for the 4th ID HQ Complex. Pursuant to provisions in the Clean Water Act, contractors performing work at Fort Carson must submit a Notice of Intent to obtain coverage under the Stormwater General Permit for each construction project that disturbs 1 acre or more. In addition, contractors must develop and implement a stormwater pollution prevention plan for each project that outlines mitigation strategies to reduce impacts associated with stormwater runoff during construction (John Cloonan/Fort Carson, DECAM by e-mail, 2005b). Typical mitigation measures to be implemented during construction include:

- Hazardous material storage and handling requirements near surface waters
- Inspection and maintenance of vehicles to prevent leaks



- Legend**
- IN BCT Complex
 - Heavy BCT Complex
 - 4th ID HQ Complex
 - Approximate Boundary of Iron Horse Park
 - Wetlands
 - Floodplain
 - Surface Water

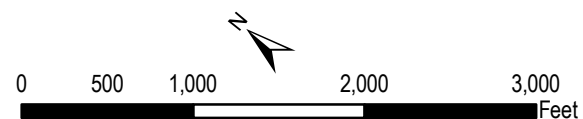


Figure 3-3
Water and Biological Resources
Construction of FY06 Facilities
Fort Carson, Colorado

- Use of absorbent materials to clean up any potential spills during construction
- Designated locations for onsite refueling and use of tarps to collect drips or spills
- Covering of soil to prevent dislodging of soil particles

Phasing of construction, compliance with the Stormwater General Permit, and implementation of the stormwater pollution prevention plan would reduce any potential impacts to surface water to less than significant levels. The conversion of ballfields and open areas to buildings and parking areas may increase stormwater runoff; however, the proposed projects would be designed to meet Colorado stormwater control design standards. Potential impacts from spills of hazardous materials are discussed in Section 3.12.

Floodplains

Areas within the floodplains are associated with nearby ditches. Portions of the proposed action sites are near or within the 100-year floodplain (Figure 3-3). Construction of the IN BCT Complex would not occur in or adjacent to a floodplain. The northeastern boundary of the Heavy BCT Complex and portions of the 4th ID HQ Complex are within the 100-year floodplain. The portions of the 4th ID HQ Complex within the floodplain include the northeast boundary and the central and northern portions of Iron Horse Park. Construction of the Heavy BCT Complex would not erect any structures in the floodplain that would decrease the volume currently available for flood control. The bridge allowing Specker Avenue to cross I Ditch (Clover Ditch) would be replaced and the replacement bridge would be able to accommodate flows of the same or greater magnitude as the current bridge. The new bridge would not cause a change in the flood elevation.

The northeastern boundary of the 4th ID HQ Complex borders the floodplain adjacent to I Ditch (Clover Ditch), but construction activities would not occur in that area. The sports fields currently located northeast of Specker Avenue would be demolished and rebuilt in Iron Horse Park, near the unnamed ditch. Some of the new sports fields would be built within the 100-year floodplain adjacent to the unnamed ditch in Iron Horse Park. These fields would not decrease the space available for flood control purposes and would not significantly increase the amount of impermeable surface in the floodplain. Therefore, the new sports fields would represent a less than significant increase in the amount of impermeable area and would not cause a change in the flood elevation.

None of the construction activities associated with the proposed action would result in a change in the flood elevation, and impacts to the floodplain from implementation of the proposed action would be less than significant.

Groundwater

The proposed action could have a significant impact if it decreases the quantity or quality of groundwater; however, the proposed action would not pump or use any groundwater or release any water that could infiltrate any aquifer. Therefore, the proposed action would have no impact on groundwater.

3.6.2.2 No Action Alternative

Implementing the no action alternative would not result in any construction activities; therefore, no impacts to water resources would occur.

3.7 BIOLOGICAL RESOURCES

3.7.1 Affected Environment

Biological resources on Fort Carson exist primarily in the training range area. The cantonment area is highly disturbed and developed. The limited areas with vegetation are covered mostly by non-native landscaped vegetation and turf grasses (Fort Carson, 2002a).

Vegetation

Fort Carson is located within the upper regions of the Prairie Grasslands Plant Zone. General characteristics of the region include open, generally treeless terrain with the majority of plants belonging to the grass family. The eastern side of the Installation is dominated by grasslands, and by varieties of rushes, sedges, and forbs along stream beds. The western portions of Fort Carson support communities of woody vegetation mixed with grasses (Fort Carson, 2002a).

Woody plant communities cover some 50 percent of Fort Carson south of the cantonment area. Coniferous woodlands are by far the most common and dominate the elevated landscapes on the southern half of the Installation. These woodlands are dominated by one-seed juniper or a combination of one-seed juniper and pinon pine. Pinon-juniper woodlands are found primarily on mesas and hills with gravelly soils where they easily out-compete grasses. At moist sites, particularly along rock ridges and creeks, ponderosa pine, Rocky Mountain juniper, and oaks are present within, and even dominating, the pinon-juniper community. Several deciduous shrublands are found on Fort Carson and are usually restricted to special edaphic conditions. These include four-winged saltbush, Frankenia-shadscale, Gambel oak, skunkbush, and mountain mahogany shrub communities.

Rare on Fort Carson, and host to several sensitive plant species, including a few Colorado endemics, are the chalk-shale barrens communities. These communities support several core flora characteristic of the rare Arkansas River Valley barrens, as well as more common species. Fort Carson barrens communities are generally restricted to the extreme southern third of the Installation and are characterized by exposed bedrock formations and generally low plant cover in comparison to adjacent communities.

Grasslands on Fort Carson are generally classified as shortgrass prairie, which covers some 48 percent of the Installation south of the cantonment area. These grasslands are dominated by blue grama, a bunch grass, resulting in a habitat characterized by patches of bare soil. Other species typically found in this prairie type on Fort Carson are sand dropseed, ring muhly, and purple-three awn. A variety of herbaceous forbs are known to occur, particularly at sites where the ground surface is disturbed. Western wheatgrass frequently dominates moist sites on the prairie, and is a common species in Fort Carson seed mixes. Patches of cholla cactus are found locally within the grasslands of Fort Carson, adding structure used by a variety of wildlife species.

The cantonment area, including sites proposed for the IN BCT and the 4th ID HQ Complexes, is primarily landscaped. Vegetation in these areas is frequently composed of species introduced to Colorado including green ash, non-native hackberry, honey-locust, and bluegrass. Exotics such as the Russian olive and planted native species including ponderosa and pinon pines are also present. Native riparian corridors dominated by native plains cottonwood with an understory composed of chokecherry, coyote willow, snowberry, are present in the cantonment area; these riparian communities are often invaded by non-native species such as Japanese brome, Eurasian tansy mustard, green ash, and Russian olive.

The Iron Horse Park area and the site proposed for the Heavy BCT Complex contain a mixture of native vegetation communities and developed landscaped areas. The proposed Heavy BCT Complex site has limited landscaping and vegetation consists primarily of grassland, wetland areas, and shrublands. The Iron Horse Park area consists of barren land with areas of vegetation that include grassland and landscaped vegetation.

3.7.1.1 Wildlife

Existing data on wildlife species present on Fort Carson were obtained for the Integrated Natural Resource Management Plan (INRMP) and from the *Land Condition Trend-Analysis Installation Report, Fort Carson Military Reservation, Colorado* (Gordon, 1989). This report lists wildlife species and is updated as new species are confirmed. Fort Carson maintains lists of species known to occur on the Installation in its INRMP (Fort Carson, 2002a).

Mammals present in the cantonment area include those able to coexist with human activities, such as the cottontail, tree squirrel, and red fox, as well as numerous smaller species. Some 300 species of birds are known to occur on Fort Carson, including federally and state listed species.

Cantonment area birds include unprotected species such as the rock pigeon, house sparrow, and European starling. Also present in the cantonment area are many protected species that readily coexist with humans: Say's phoebe, barn, cliff, and violet-green swallows; house finch; magpie; Bullock's oriole; blackbirds; American Kestrel; and the great horned owl. Breeding water bird populations are not extensive, but the mallard, American Coot, pied-billed grebe, and blue-winged teal are fairly common nesting species in years when water resources are available. Fort Carson's reservoirs are stocked with non-native species for recreational fishing, but small native fish are present as well. Streams, particularly spring-fed streams, support native species, including federal candidate species for listing.

3.7.1.2 Sensitive Species

The following special status wildlife and plant species either occur or have the potential to occur on Fort Carson.

Special-Status Species Plants

The Federally Threatened Ute's ladies tresses has the potential to occur on Fort Carson. However, surveys in potentially suitable habitat have not found the species and there are no historic records of its occurrence on Fort Carson (Fort Carson 2002a). No other federal- or state-listed threatened or endangered plants occur on Fort Carson, and no portion of Fort Carson has been designated as critical habitat for listed plant species (Fort Carson, 2002a).

Sensitive plant species known to occur on Fort Carson include *Oxybaphus rotundifolius* (Roundleaf Four-O'Clock), *Oenopsis puebloensis* (Pueblo Goldenweed), *Oenothera harringtonii* (Arkansas Valley Evening Primrose), *Bolophyta tetraeuris* (Arkansas River Feverfew) and (2) *Nuttalia [Mentzelia] chrysantha* (Golden Blazing Star). While these species have no federal or state protection, they are considered as regional targets for conservation by the Colorado Natural Heritage Program. These species are not known or suspected to occur with the proposed action area.

Special-status Species Wildlife

Federally listed and candidate species found on the Installation include the bald eagle, Mexican spotted owl, greenback cutthroat trout, and Arkansas darter. The southern red-bellied dace, greenback cutthroat trout, Arkansas darter, and burrowing owl are the only state listed species

known to occur on the Installation. Regional listed species include the Prebles's meadow jumping mouse and the black-footed ferret; however, neither are suspected to occur on Fort Carson. These species are not known or suspected to occur with the proposed action area.

The Mexican spotted owl is a winter resident (December to February) in the rugged canyons in the southern half of the Installation. There are no records for this species in the cantonment area. It may occasionally occur in the Rock Creek drainage, south of Wilderness Road. A road-kill owl was found on Highway 115 Rock Creek bridge in 1992. Mexican spotted owls occupied Rock Creek west of Fort Carson during the 1993 to 1995 breeding seasons, but fledglings were never detected in Rock Creek.

Native and special-status fish species on Fort Carson occur within reservoirs located downrange of the cantonment area (Fort Carson, 2002a). These locations are removed from the sites for implementation of the proposed action and have no potential to be impacted by the proposed action. Therefore, special status fish species are not discussed further in this analysis.

Terrestrial special status species known to occur on Fort Carson are discussed below.

Bald Eagle

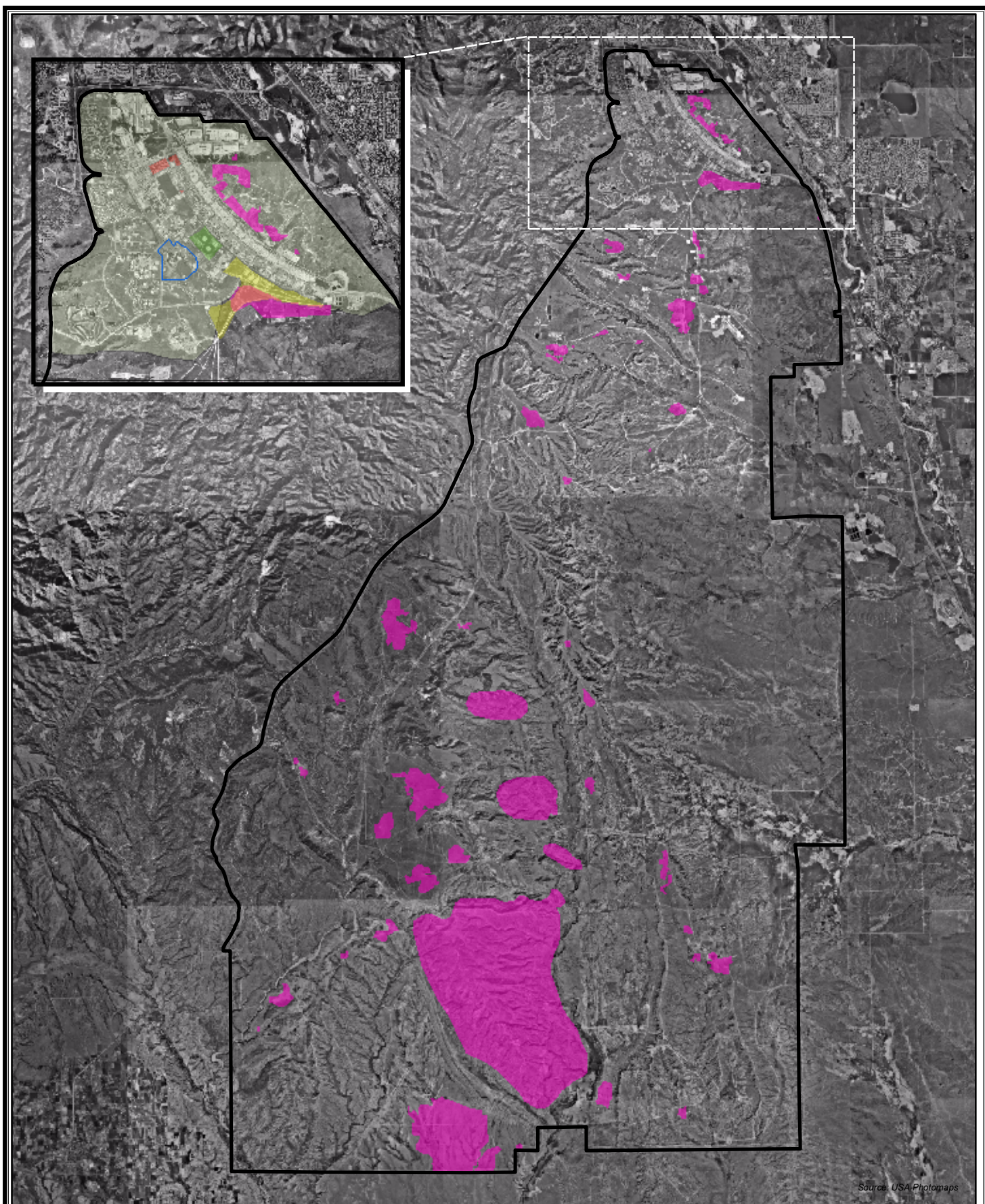
The bald eagle is a winter resident and migrant on Fort Carson, but a communal winter roost site has never been found on the Installation. Most sightings have been in the northern portions of the Installation and have been concentrated on prairie dog colonies in the cantonment area and the small arms range. Bald eagles are not known to nest on Fort Carson or in the surrounding area (Fort Carson, 2002a).

Black-tailed Prairie Dog

In 2004, the U.S. Fish and Wildlife Service (USFWS) removed the black-tailed prairie dog as a candidate for listing under the Endangered Species Act because it determined that the black-tailed prairie dog is not likely to become an endangered species within the foreseeable future and no longer meets the Endangered Species Act definition of threatened. The black-tailed prairie dog is classified as a state sensitive species having no special protection outside of current state hunting regulations. Prairie dogs occur over much of Fort Carson (Figure 3-4). Fort Carson implements a prairie dog management program to control prairie dog populations. Prairie dog populations are reduced when they present a health threat or safety issue to residents or facilities on the Installation (Fort Carson, 2002a).

Mountain Plover

Once proposed for listing as a Federally Threatened species, the USFWS withdrew the proposed listing in 2003 for the mountain plover. It currently has no protection other than the Migratory Bird Treaty Act of 1918 or state regulations protecting non-game species. The mountain plover is currently considered a sensitive species by the state and the USFWS; and the Colorado Natural Heritage Program tracks its status. On Fort Carson, resident (breeding) mountain plovers are associated exclusively with active prairie dog colonies, particularly with the large colony in the extreme southern portion of the Installation. The burrowing and grazing activities of black-tailed prairie dog colonies are necessary to create suitable breeding habitat. Mountain plovers may occur as transients or migrants on other parts of the Installation (Fort Carson, 2002a).



Legend

- 4th ID HQ Complex
- Heavy BCT Complex
- IN BCT Complex
- Iron Horse Park
- Prairie Dog / Burrowing Owl habitat
- Installation Boundary
- Cantonment Area

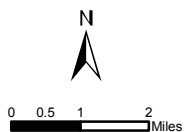


Figure 3-4
Prairie Dog / Burrowing Owl Habitat
Construction of FY06 Facilities
Fort Carson, Colorado

Burrowing Owl

The burrowing owl is listed by the state of Colorado as threatened. It is an uncommon resident at Fort Carson, but is known to have established habitat in training areas throughout the Installation (Figure 3-4). The burrowing owl uses the same habitat as black-tailed prairie dogs, but the owl is less common and does not occur in each prairie dog colony (Fort Carson, 2002a).

3.7.1.3 Wetlands

Wetlands on Fort Carson generally occur as riparian or channel wetlands along drainages or are small and isolated. Wetlands occur intermittently on the Installation and can be found along perennial stream channels and tributaries. Wetlands are found scattered throughout the cantonment area, and are generally located in natural or stormwater drainages. The total wetland area on Fort Carson is estimated to be 1,076 acres. All wetlands mapped on Fort Carson are included in the National Wetlands Inventory (Fort Carson, 2002a).

No wetlands occur in the area proposed for the IN BCT Complex. Wetlands have been identified within the other proposed project sites (Figure 3-3). Three wetlands occur within the proposed Heavy BCT Complex site. These include riparian and channel wetlands along I Ditch (Clover Ditch) near the northeast boundary of the proposed site, a small wetland associated with a stormwater drainage southeast of Butts Road, and riparian and channel wetlands along the unnamed ditch near the intersection of Brown Road and Butts Road. I Ditch (Clover Ditch) also flows along the length of the northeast border of the proposed 4th ID HQ Complex site, with riparian and channel wetlands occurring along its length. An unnamed depression channel wetland bisects Iron Horse Park in a north to south direction.

3.7.2 Consequences

3.7.2.1 Proposed Action

Direct and indirect impacts to plants, animals, and their habitats could result from construction related activities. Impacts could include disturbance of plants and animals and their habitats, permanent displacement of animals, and destruction or impairment of plants and habitat.

Vegetation

During land clearing and grading at currently undeveloped locations, all plants would be eliminated from the construction area. Care would be taken to clearly demarcate the construction areas to avoid damage to vegetation adjacent to construction sites.

Activities to be conducted under the proposed action could disturb or destroy native grassland due to construction activities and permanent development of facilities for the Heavy BCT Complex. Temporary impacts to native grasslands would be mitigated by revegetating with appropriate native grass/forb seed mixtures or other acceptable seed mixtures that contain native species, as specified in the INRMP. Permanent impacts to native grasslands would occur as a result of paving and landscaping in immediate building areas. Impacts are considered to be less than significant because the area lost would be very small (less than 1 percent) compared to the total grasslands occurring on Fort Carson.

A small amount of shrubland also would be eliminated by construction of the Heavy BCT Complex.

Wildlife

Animals are assumed to avoid construction areas, thus avoiding direct impacts. However, some incidental mortality to resident species is likely to occur during the construction period. Incidental losses of animals during construction would not affect regional animal population levels. Animals displaced by construction activities, either from the construction area or areas adjacent to construction sites, would be able to return to the area once construction is complete. Animal use of the immediate project areas would be less than prior to construction, but Fort Carson has ample habitat to accommodate permanently displaced animals.

Bald eagles would only enter project areas as transients or to forage. The human activity at the construction site would cause the bald eagles to avoid the area during construction. Avoidance of the construction area would be a less than significant impact to bald eagles.

Because construction would eliminate 70 acres of prairie dog habitat in the area proposed for the Heavy BCT Complex (Figure 3-4), it is likely that incidental mortality of prairie dogs would result. Because of the abundance of black-tailed prairie dogs and their habitat (approximately 4,000 acres of occupied habitat in 2005) on Fort Carson, any incidental mortality would not adversely affect the survival of the species, either on Fort Carson or range-wide.

Burrowing owl populations are vulnerable to predation and to activities that destroy prairie dog burrows. Burrowing owl populations have declined in the western United States due to loss of habitat as a result of widespread eradication of prairie dogs and their burrows. The conversion of rangeland to other uses such as agriculture (irrigated land) and urbanization has also contributed to the decline in the burrowing owl population (NatureServe, 2005). Approximately 4,000 acres of potential burrowing owl habitat existed on the Installation in 2005, with 70 acres located in the Heavy BCT Complex site (Figure 3-4).

Activities to be conducted under the proposed action could disturb or destroy prairie dog and burrowing owl habitat within the area proposed for the Heavy BCT Complex. Prairie dog/burrowing owl habitat that could potentially be disturbed as a result of the proposed action consists of less than 2 percent of the total habitat for these species on Fort Carson. Impacts to prairie dog/burrowing owl habitat would be less than significant due to the relatively small percentage of their habitat on Fort Carson being disturbed as a result of the proposed action.

Burrowing owls and prairie dogs using the area that would be affected as a result of the Heavy BCT Complex would be permanently displaced. It is anticipated that they would occupy other available habitat on the range; therefore, impacts to these animal populations are considered to be less than significant. Some incidental mortality could occur during relocation, but, as discussed above, any such incidental mortality would be less than significant. A USFWS migratory bird take permit would be required to allow destruction of burrowing owl nests or young known to occur within the proposed site.

No breeding mountain plovers have been documented using the prairie dog colony that would be impacted by the proposed action. Any transient or migrating mountain plovers would avoid the active construction areas. Therefore, no impacts to the mountain plover would occur as a result of the proposed action.

Wetlands

Wetlands are located along the edge of both the Heavy BCT and 4th ID HQ Complexes proposed action sites. Iron Horse Park also contains wetlands along an unnamed ditch. Construction of the 4th ID HQ Complex and Iron Horse Park would avoid impacts to wetlands. An estimated maximum of 13 acres of three separate wetlands would be affected by construction of the Heavy BCT Complex. Direct impacts would result as follows:

- Realignment of the unnamed ditch paralleling Brown Road. A maximum of approximately 6 acres could be impacted. During a site visit on 15 September 2005 by the USACE Pueblo Field Office, the agency determined that the wetland is jurisdictional.
- Paving of an isolated wetland adjacent to Butts Road. A maximum of approximately 1 acre could be impacted. The USACE Pueblo Field Office determined during a site visit on 15 September 2005 that the wetland is not jurisdictional.
- Replacement of the Specker Avenue bridge spanning I Ditch (Clover Ditch) and realignment of the ditch. A maximum of approximately 6 acres could be impacted. During a site visit on 15 September 2005 by the USACE Pueblo Field Office, the agency determined that the wetland is jurisdictional.
- Construction of temporary sediment retention ponds.

Once field delineation of the wetlands are verified by USACE and the boundaries of the project impacts are determined based on project designs, projects would be examined to determine whether and to what extent impacts to wetlands could be minimized through modifications to site designs.

Jurisdictional wetlands that are potentially impacted by implementation of the proposed action would be formally delineated in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). Pursuant to Section 404 of the Clean Water Act, a permit would be obtained from USACE for impacts to jurisdictional wetlands. Any impacts would be mitigated in accordance with requirements stipulated in the permit; therefore, impacts are considered to be less than significant.

In addition, indirect impacts to wetlands could occur as a result of runoff from areas disturbed by construction activities. Impacts from erosion and sedimentation due to construction are addressed in Sections 3.6 and 3.7.

3.7.2.2 No Action Alternative

No impacts to biological resources would result from implementation of the no action alternative.

3.8 CULTURAL RESOURCES

3.8.1 Affected Environment

Cultural resources are defined for the Army in Army Regulation (AR) 200-4, Cultural Resources Management. Management and treatment strategies for cultural resources on Fort Carson for compliance with Sections 110 and 106 of the National Historic Preservation Act are addressed in the following documents: a 1980 Memorandum of Agreement between Fort Carson, the Colorado State Historic Preservation Office, and the Advisory Council on Historic Preservation. The Fort Carson *Integrated Cultural Resources Management Plan 2002-2006* (Fort Carson, 2002b) and AR 200-4, Cultural Resources Management. Fort Carson would comply with all policies, procedures, regulations, and requirements outlined in these documents.

The proposed construction sites have all been surveyed for cultural resources (Directorate of Environmental Compliance and Management [DECAM], 2002 and GRCI, 1982). No historic properties eligible for inclusion in the National Register of Historic Places (NRHP) were found in these surveys.

3.8.2 Consequences

3.8.2.1 Proposed Action

All three areas proposed for construction were inventoried for cultural resources and no cultural resources were determined to be present. Therefore, the proposed alternative would have no adverse impacts to known cultural resources.

In the event that cultural materials or human remains are unexpectedly discovered during construction, Fort Carson's Inadvertent Discovery of Archaeological Resources or Burials and the Native American Graves Protection and Repatriation Act standard operating procedures would be applied and enforced (Appendix D).

3.8.2.2 No Action Alternative

Implementing the no action alternative would not result in any construction activities; therefore, no impacts to cultural resources would occur.

3.9 SOCIOECONOMICS

3.9.1 Affected Environment

3.9.1.1 Local Economy

El Paso County is home to the majority of Colorado's active military installations, including Fort Carson, Peterson Air Force Base, Schriever Air Force Base, and the United States Air Force Academy. According to the *Defense and Aerospace Industry Economic Impact Study* (Peat Marwick, 1998), approximately 40 percent of the Colorado Springs area economy is directly or indirectly related to DoD spending. Fort Carson has a substantial impact on the local economy. In FY01, Fort Carson contributed more than \$1.1 billion to the local economy (as military pay and allowances, value of jobs created, local purchases and contracts, civilian payroll, Tricare medical payments, utilities, rent and lease payments, and tuition assistance and grants) (Fort Carson, 2002a).

3.9.1.2 Demographics

Fort Carson is located south of Colorado Springs and occupies parts of El Paso, Pueblo, and Fremont Counties. The City of Colorado Springs, El Paso County's primary urban area, has a population of approximately 375,000 people (PPACG, 2003). In FY01, Fort Carson provided services, including medical support and recreation, to 90,790 people. The population working on Post in 2001 was 19,946 (Fort Carson, 2002a).

3.9.1.3 Housing

On post housing at Fort Carson consists of 24 bachelor quarters, 184 transient quarters, and 5,553 barracks spaces. Fort Carson was the first Army installation in the United States to privatize the management of residential housing facilities in an effort to meet the Army's Residential Community Initiative (RCI) goal of eliminating inadequate housing at U.S. installations by 2007. Fort Carson has 2,700 family housing units on Post. Military personnel who reside off post comprise approximately 25 percent of the rental market in the Colorado Springs area.

3.9.1.4 Services

Fort Carson offers services similar to those of civilian communities, such as child care facilities, a hospital, post exchanges, a commissary, gasoline service stations, restaurants, and athletic

facilities. The cantonment area has physical fitness centers, 14 softball fields, a bowling alley, 2 softball diamonds, indoor and outdoor swimming pools, football fields, 10 tennis courts, an archery course, and an 18-hole golf course. The Installation has numerous neighborhood and general use parks with playground equipment and picnic areas (Fort Carson, 2002a).

Fort Carson has three elementary schools and one middle school. High school students who live on Post travel by bus to the Fountain-Fort Carson High School located in the City of Fountain.

Fire protection is provided at Fort Carson by the Fort Carson Fire Department, which is operated by the Directorate of Public Works. The Fort Carson Provost Marshall is responsible for providing security and law enforcement on the Installation (Fort Carson, 2005a).

3.9.1.5 Environmental Justice

According to data from the 2000 Census, El Paso County has a minority population of approximately 23.8 percent. Statewide, minorities contribute 25.5 percent to the total population. Fort Carson consists of 35 percent military and 30 percent civilian minority populations, which is similar to other military populations (Census Bureau, 2000). Of the total United States military, approximately one-third (35.8 percent) of active duty members identify themselves as minorities (Military Family Resource Center [MFRC], 2003). Within El Paso County, much of the area northeast of Fort Carson has minority populations that are 25 to 50 percent of the total population. The urban area directly north of the post consists of 10 to 25 percent minority populations, and adjacent areas to the west and east consist of less than 10 percent minority populations (Census Bureau, 2000).

Using established poverty guidelines (Census Bureau, 2000), approximately 10 percent of El Paso County's population live below the poverty line. Fort Carson and other surrounding areas have poverty levels below 20 percent. Pockets of poverty affecting more than 20 percent of the population are scattered throughout Colorado Springs (Fort Carson, 2002a).

3.9.1.6 Protection of Children

Fort Carson follows the guidelines as specified for the protection of children in EO13045, *Protection of Children from Environmental Health Risks and Safety Risks*. EO13045 directs agencies to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children.

3.9.2 Consequences

3.9.2.1 Proposed Action

The proposed action would result in a temporary beneficial socioeconomic impact from construction employment. Suppliers in the area would experience a short-term increase in demand and sales of construction related materials. The construction of the proposed action would not result in a change of personnel stationed at Fort Carson; therefore, regional demographics would not change. Similarly, the action would have no effect on housing and quality of life. Recreational facilities currently at the site of the proposed 4th ID HQ Complex would be rebuilt at Iron Horse Park. Therefore, potential impacts to recreation would be less than significant.

Fire, police, and security services would be provided by Fort Carson to the new facilities with existing manpower, equipment, and facilities with, at most, a minor increase in response time. Therefore, impacts are anticipated to be less than significant to these services as a result of implementation of the proposed action. The recreational facilities that would be demolished for

construction of the 4th ID HQ Complex would be rebuilt at Iron Horse Park; therefore, potential impacts to recreation would be less than significant.

Implementation of the proposed action would not disproportionately impact children, minority, or low income populations.

3.9.2.2 *No Action Alternative*

Current socioeconomic conditions would not change with implementation of the no action alternative; therefore, no impacts would occur.

3.10 *TRANSPORTATION*

3.10.1 *Affected Environment*

3.10.1.1 *Roadways and Traffic*

Fort Carson is bordered by Interstate 25 to the east, SH 115 to the west, and Academy Boulevard/SH 83 to the north.

3.10.1.2 *Installation Transportation*

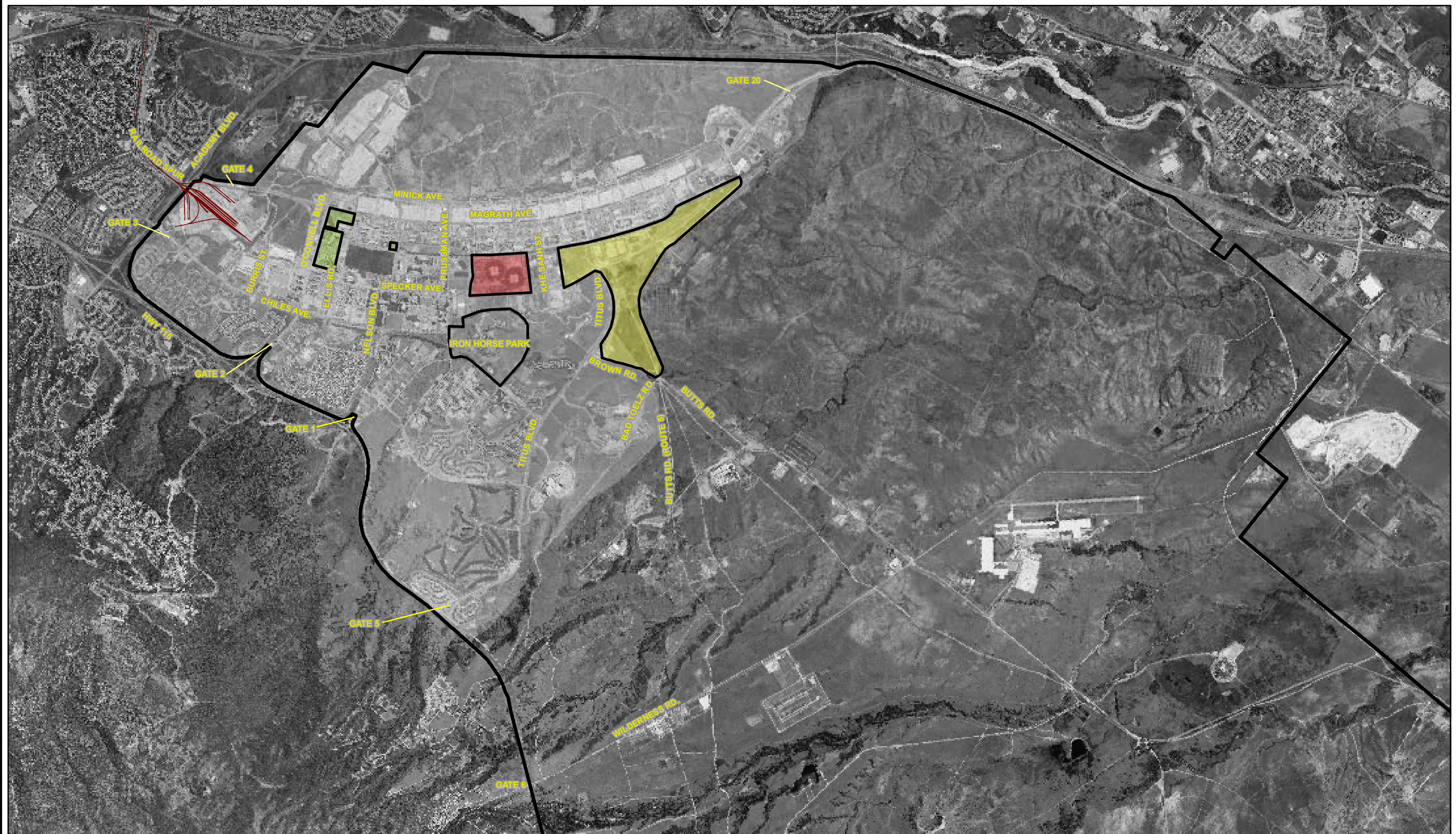
Access to Fort Carson is provided through Gates 1, 2, 5, and 6 off of SH 115, Gates 3 and 4 off of Academy Boulevard, and Gate 20 off of I-25 (see Figure 3-5). The north-south roadways are laid out in crescent shape from the northwest to the southeast of the cantonment area. Primary east-west access within the cantonment area to SH 115 is provided by O'Connell Boulevard and Titus Boulevard. Butts Road provides access to areas downrange from the cantonment area. The roadway system forms somewhat of a grid pattern and can be classified in one of the following three categories: arterial highways, collector roadways, and local roadways (Fort Carson, 2005d).

Butts Road and two one-way roadways, Magrath Avenue and Barkeley Avenue, are classified as arterials. Collector roadways within Fort Carson include O'Connell Boulevard, Ellis Street, Nelson Boulevard, Prussman Boulevard, and Titus Boulevard, Specker Avenue, Chiles Avenue, Harr Avenue, and Minick Avenue. Local roadways throughout Fort Carson serve as the direct connections to parking lots and adjacent properties.

3.10.2 *Consequences*

3.10.2.1 *Proposed Action*

During construction, traffic on roads surrounding Fort Carson and on Post would temporarily increase. Construction traffic would be routed through Gate 3, Fort Carson's primary commercial traffic gate, and continue south on Chiles Avenue, similar to current construction traffic patterns. Construction traffic would pass by a school at Chiles Avenue and Burris Street. Crossing guards would be used and speed zones enforced to ensure safety of school children in the area. Chiles Avenue is currently the primary route for commercial and construction traffic and the introduction of minimal amounts of additional traffic for temporary construction purposes would not negatively impact school children. If needed, construction traffic can be re-routed onto Specker Avenue to avoid sensitive resources.



Legend

- IN BCT Complex
- Heavy BCT Complex
- 4th ID HQ Complex
- Approximate Boundary of Iron Horse Park
- Installation Boundary
- Railroad
- Cantonment Area

0 0.25 0.5 1 1.5 2 Miles



Figure 3-5
Transportation System
Construction of FY06 Facilities
Fort Carson, Colorado

Construction traffic would consist of construction vehicles and equipment, including bulldozers, graders, backhoes, excavators, dump trucks, cement trucks, and hoe-ram excavators. Transport vehicles would move the construction equipment (other than trucks) to and from the work site. On post roadways may need to be temporarily closed during construction activities. Use of traffic control procedures, including flaggers and posted detours, would minimize impacts to traffic flow. Other mitigation measures to address potential traffic impacts include minimizing construction vehicle movement during peak rush hours on the Installation and placing construction staging areas in locations that would minimize construction vehicle traffic within administrative, housing, and school areas. With implementation of the mitigation measures, construction impacts would be temporary and minor.

The portion of Specker Avenue south of Wetzel Street would be realigned and extended as part of the planned Heavy BCT Complex. During construction, alternate and parallel routes would be used and construction would be phased to reduce the potential impacts to traffic in this area. Potential impacts to traffic during construction along Specker Avenue would be temporary and localized and are anticipated to be less than significant with use of alternate routes and construction phasing. The planned realignment and extension of Specker Avenue would greatly enhance traffic flow in the southern portion of the cantonment area after construction is completed, resulting in a long-term beneficial impact to traffic.

Butts Road, between the current intersection with Brown Road/Bad Toelz Road and Specker Avenue, would be permanently closed to accommodate the Heavy BCT Complex. Existing traffic would be permanently rerouted onto Brown Road and Titus Boulevard to the west and northwest of the proposed Heavy BCT Complex. The road network to be constructed for the Heavy BCT Complex, such as realignment and extension of Specker Avenue, would be adequate to accommodate future traffic volumes and flows. Therefore, potential impacts to traffic as a result of the road closure are anticipated to be minor.

Overall traffic volume would not change as a result of constructing the proposed action.

3.10.2.2 No Action Alternative

The implementation of the no action alternative would result in no impact to transportation facilities on or around Fort Carson.

3.11 UTILITIES

3.11.1 Affected Environment

3.11.1.1 Potable Water

Potable water is purchased by Fort Carson from Colorado Springs Utilities (CSU) for domestic, industrial, and irrigation use in the cantonment area. The maximum historical daily demand by the cantonment area is 5.5 million gallons per day (mgd), while the total capacity of the two 20-inch supply lines is 14 mgd (Fort Carson, 2002a). Water is supplied to the south of the cantonment area by a water line that follows near Route 1 to the Multipurpose Range Complex at the southern end of Fort Carson. This water line has been scheduled for an upgrade as one of Fort Carson's planned master plan projects (Fort Carson, 2002a). The potable water storage system consists of four reservoirs that provide capacity during emergency situations. Fort Carson's Teller Reservoir has a total capacity of 31.8 million gallons.

Tributaries for which Fort Carson retains water rights are Little Fountain Creek, Little Turkey Creek, Red Creek, Rock Creek, Sand Canyon Creek, Turkey Creek, and Wild Horse Creek. Fort Carson has 16 subsurface water rights for the 9 installed wells. Decreed usage categories

include irrigation, recreation, fish maintenance, fire fighting, military use, livestock, and domestic and industrial.

3.11.1.2 Wastewater System

Fort Carson operates and maintains a sanitary sewage treatment plant, which services the cantonment area, the family housing area, Butts Army Airfield, and the Range Control Complex. The original system, constructed in 1942, has been modified several times to meet discharge requirements. A major renovation at the sewage treatment plant was completed in 1999, and additional equipment is being installed. The plant has a 4.02-mgd design capacity and the maximum peak historical flow to the sanitary sewage treatment plant is 2.6 mgd. Effluent discharges from the sewage treatment plant are regulated under EPA National Pollution Discharge Elimination System Permit Number CO-00211181, effective 1 October 2005. The Colorado Department of Public Health and Environment allows Fort Carson to discharge only 3.0 mgd into Colorado-regulated streams. Effluent is discharged into I Ditch (Clover Ditch), and a portion of the effluent is used to irrigate the Fort Carson golf course.

The IWTP is directly north of the sanitary sewage plant, near Gate 20. The IWTP line runs down Minick Avenue behind the motor pools, which are all connected to the IWTP. Water is conveyed using lift stations and gravity flow. Butts Army Airfield, Colorado Army National Guard Centennial Training Site, and 10th Special Forces Complex (all south of the cantonment area) are not connected to the IWTP. Water from these facilities is containerized and treated at the IWTP when necessary. The IWTP was designed to treat petroleum-contaminated water from the motor pools in the cantonment area. The industrial line at Butts Army Airfield is combined with the sanitary line and both are pumped back to the sewage treatment plant at Gate 20. IWTP water is combined with the sanitary sewage water entering the sewage plant. No IWTP water is discharged directly to B Ditch, I Ditch (Clover Ditch), or the unnamed ditch (Fort Carson, 2002a).

3.11.1.3 Stormwater System

The northern and southern portions of the Installation are located in the Fountain Creek watershed and Cripple Creek watershed, respectively (Pikes Peak Area Council of Governments, 2003). The northern portion of the cantonment area is drained by three major ditches: B Ditch, I Ditch (Clover Ditch), and the unnamed ditch which flow through Iron Horse Park. All three are tributaries to Fountain Creek. Downrange, stormwater drains through natural drainages some of which have been modified, particularly near roads and range facilities (Fort Carson, 2002a).

Fort Carson, as an operator of a small municipal storm sewer system, falls under a general permit for Stormwater Discharges from Federal Facility Small Municipal Separate Storm Sewer Systems in Colorado. The permit became effective on 23 June 2003 and expires on 22 June 2008.

To obtain coverage under the general permit, contractors performing work at Fort Carson must submit a Notice of Intent for each construction project that disturbs 1 acre or more of land. In addition, contractors must develop and implement a stormwater pollution prevention plan for each project (John Cloonan/Fort Carson by e-mail, 2005b).

3.11.1.4 Energy Sources

Fort Carson purchases natural gas and electricity from CSU. The peak historical daily consumption of natural gas at Fort Carson is 8,600 million cubic feet (mcf), and the peak historical monthly consumption is 186,000 mcf. The estimated CSU daily capacity is 10,650 mcf (Fort Carson, 2002a).

Electrical services are provided through two aerial 34.5-kilovolt, 3-phase, supply lines, which terminate at two power substations in the cantonment area. Difficulties meeting summer electrical demand have been reported (Fort Carson, 2005a). The peak historical electrical demand at Fort Carson is 24,000 kilowatts; the total capacity of transmission lines available to Fort Carson is 48,800 kilowatts, and the total capacity of transformers is 32,200 kilowatts (Fort Carson, 2002a).

3.11.1.5 Solid Waste

The Installation has no active landfills. All solid wastes are disposed of at approved, off post, commercial landfills (Fort Carson, 2002a).

3.11.2 Consequences

3.11.2.1 Proposed Action

Potable Water

Low water pressure has been experienced in the area of construction where the IN BCT Complex would be constructed (Fort Carson, 2005a). As part of the proposed action, a water storage tank would be installed to supply the necessary delivery pressure to these newly constructed facilities. The water tank would be designed to accommodate fire protection pressure and flow requirements. Construction of the water tank would improve water pressure and thus result in a slightly beneficial impact.

For the Heavy BCT and the 4th ID HQ Complex projects, no new water utilities would need to be constructed. The current water capacity is 14 mgd and daily use is approximately 5.5 mgd; therefore, there is approximately 9 mgd of excess capacity. Potable water usage during the construction of the proposed action should have a negligible impact on overall water supply at Fort Carson. The proposed facilities would be connected to existing utilities; therefore, no impact would result.

Wastewater System

An industrial wastewater collection system would be required for the collection of petroleum products from wash racks and vehicle maintenance facilities at the proposed motor pools. The sanitary sewage treatment plant is not designed to handle petroleum products. The Fort Carson National Pollution Discharge Elimination System permit number CO-00211181 does not allow for petroleum treatment. Fort Carson built an IWTP for petroleum products in 1980. An industrial wastewater collection system would need to be constructed and connected to the IWTP for the processing of petroleum contaminated wastewater from new motorpool and maintenance facilities. The IWTP would also need modifications to process the additional petroleum contaminated wastewater. Additional capacity studies would be conducted in the future to ensure that the IWTP would be sufficient to meet the needs of the multiple motorpools planned for Fort Carson under BRAC and other ongoing construction projects in the long term.

Stormwater System

Stormwater systems would be constructed as part of the proposed action to accommodate the increase in runoff resulting from an increase in paved area. Project designs will include post-construction stormwater controls designed to prevent offsite impacts from stormwater runoffs; therefore, no impact would result. See Sections 3.6 and 3.7, respectively, for descriptions of wetlands and the floodplain and potential effects to these resources resulting from implementation of any of the alternatives.

Energy Sources

Upgrades to the energy system would not be constructed as part of the proposed action. The proposed facilities would be connected to existing utilities; therefore, no impact would result.

Solid Waste

Solid waste generation would increase during the construction of the IN BCT Complex, Heavy BCT Complex, and 4th ID HQ Complex projects. Construction debris would be recycled to the extent practicable and the remainder disposed at landfills designated for construction and demolition debris. Midway Landfill in Fountain, Colorado, accepts construction and demolition debris. The current capacity of this landfill is approximately 60 years. Therefore, impacts resulting from generation of solid waste during construction are anticipated to be less than significant.

3.11.2.2 No Action Alternative

Under the no action alternative, no system upgrades to utilities would be required and no impact would result.

3.12 HAZARDOUS AND TOXIC SUBSTANCES

3.12.1 Affected Environment

Hazardous/toxic materials used at Fort Carson include gasoline, diesel fuel, oil, lubricants, chemical agents, explosives, JP-8, and pyrotechnic devices used in military training operations, radiological materials at medical facilities, pesticides, and toxic or hazardous chemicals used in industrial operations.

The principal industrial operations at Fort Carson are the repair and maintenance of vehicles and aircraft. The Consolidated Maintenance Facility (housed in Building 8000) performs specialized repair of tactical and heavy construction and engineering equipment. Vehicle maintenance at all unit motor pools includes routine oil changes and lubes, wash-downs, and refueling.

3.12.1.1 Pesticides

As required by Department of Army policies, Fort Carson emphasizes integrated pest management. However, pesticides and herbicides may be required for insect and rodent control in structures and control of undesired vegetation, including noxious weeds. Pesticides and their use at Fort Carson are described in the *Integrated Pest Management Plan* (7th ID HQ and Fort Carson, 2001).

3.12.1.2 Munitions

Fort Carson's permanent Ammunition Supply Point is located downrange (Fort Carson, 2005a). No munitions are stored within the cantonment area.

3.12.1.3 Asbestos-containing Material and Lead-based Paint

A majority of Fort Carson's structures were built when asbestos-containing materials were commonly used in construction. For example, asbestos is typically found in floor tiles, pipe wrappings, ceilings, and insulation. Lead-based paint is no longer used, but could exist in older structures (Fort Carson, 2005a).

3.12.1.4 Storage Tanks

Newly constructed contractor-owned, contractor operated (COCO) bulk and retail fuel facilities provide fuel to all military units on Fort Carson. JP-8 and MOGAS are dispensed from nine bulk ASTs and are located within the cantonment area at Specker and Barger Avenues and on Butts Road across from BAAF. Three commercial gas stations are operated by the AAFES on Fort Carson and contain three USTs each. Eighteen USTs on Fort Carson that previously stored fuel for military use are in the process of being removed and by CY07, only three small non-commercial USTs will remain on Fort Carson: two at Building 501 and one at the MPRC. Currently, 157 ASTs on Fort Carson are used mainly to store used oil at vehicle maintenance facilities. The ASTs that are being used to store JP-8 and MOGAS will be phased out as units are now required to obtain fuel from the COCO facilities.

3.12.1.5 Site Contamination and Cleanup

National Priorities List sites do not exist at Fort Carson. A final RCRA Part B Permit became effective 29 October 1995, which outlines the key components of the Environmental Restoration Program (ERP) in the Corrective Action section. The permit requires the investigation and remediation (if necessary) of 170 solid waste management units (SWMUs) (that is, areas possibly contaminated based upon known past activities). The permit also authorizes storage protocols of liquid and solid hazardous wastes at Building 9248.

The following SWMUs, which are undergoing corrective action, are located within the Heavy BCT and 4th ID HQ Complex projects (Figure 3-6):

- SWMU 34, Heavy BCT, vehicle wash rack drainages
- SWMU 45, Heavy BCT, Range 1
- SWMU 67, 4th ID HQ Complex, used/waste oil tank at Building 2239
- SWMU 72, Heavy BCT, used/waste oil tank at former Building 2735
- SWMU 74, Heavy BCT, used/waste oil tank at former Building 2840
- SWMU 75, Heavy BCT, used/waste oil tank at former Building 2940

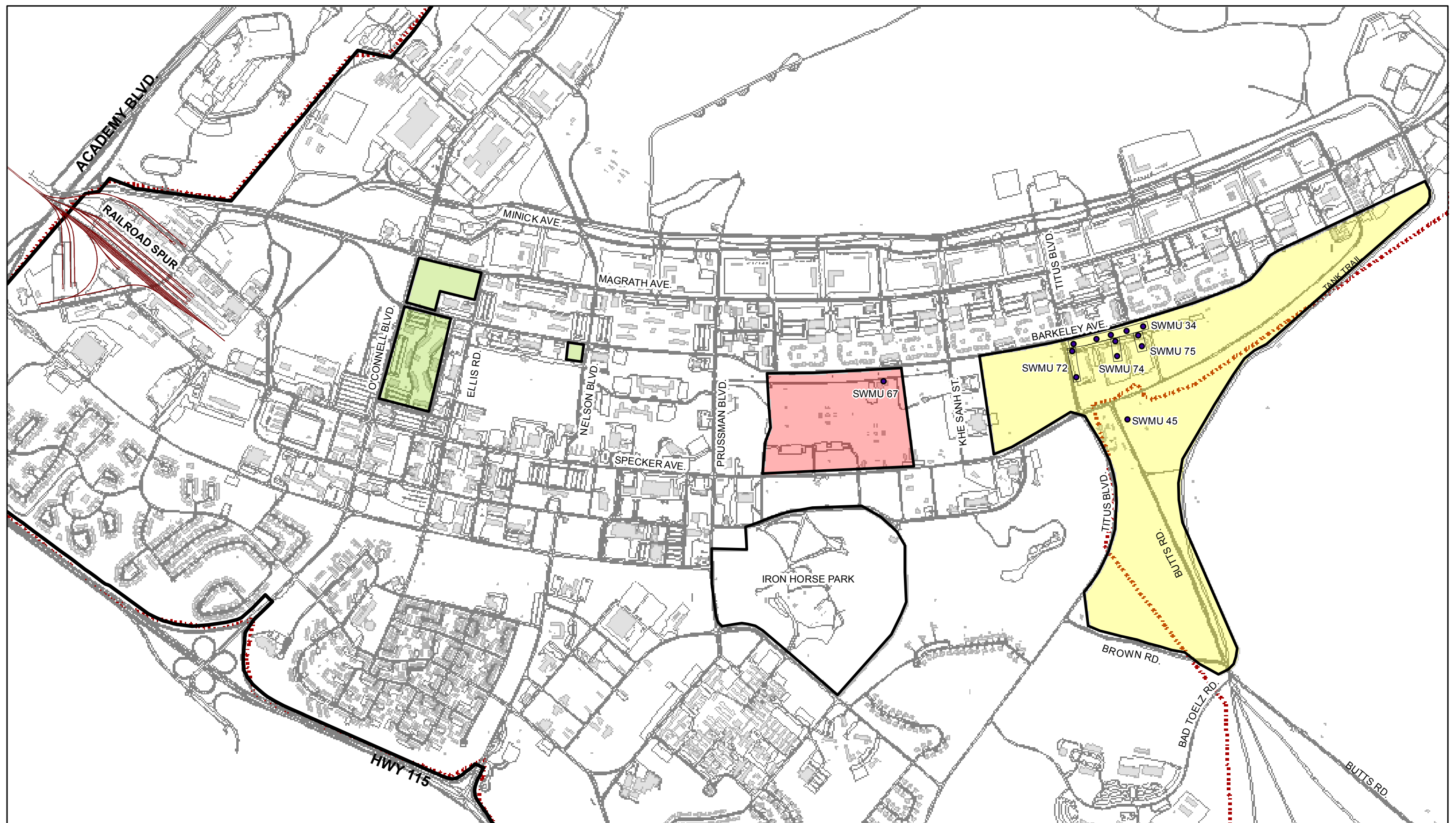
No SWMUs undergoing corrective action are located within the proposed IN BCT Complex project boundaries.

3.12.2 Consequences

3.12.2.1 Proposed Action

Hazardous Materials

Products consisting of or containing hazardous materials, such as oil, grease, hydraulic fluid, solvents, and paint, would be used during the proposed construction activities. The products would be used to maintain equipment and for the construction of the buildings, parking lots, and amenities, including painting walls or markings in the parking lots and recreational areas. Construction contractors would be responsible for complying with Fort Carson's hazardous materials management policies, the Spill Prevention, Control, and Countermeasures Plan, and Fort Carson Regulation 200-1 (Chapter 9) (Fort Carson, 2005c). In accordance with the requirement to meet the Gold level for sustainable design, the use of hazardous materials and the generation of hazardous waste during construction is anticipated to be reduced compared to conventional design requirements. Complying with the hazardous materials management practices and policies currently in place on Post would reduce potential impacts resulting from implementation of the proposed action to less than significant.



Legend

- | | |
|---|---|
| ■ IN BCT Complex | ● ERP Sites |
| ■ Heavy BCT Complex | — Railroad |
| ■ 4 th ID HQ Complex | — Installation Boundary |
| □ Approximate Boundary of Iron Horse Park | - - - Cantonment Area Boundary |

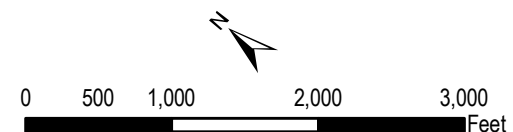


Figure 3-6
Corrective Action Sites in the Proposed Action Area
Construction of FY06 Facilities
Fort Carson, Colorado

Facility operations would not employ hazardous substances or generate hazardous wastes that are different from those already in use at Fort Carson due to military operations. All federal, state, and local laws governing handling of hazardous and toxic materials used in construction and vehicle maintenance activities during operations would be observed. Fort Carson Regulation 200-1 has specific policy and guidance for the use and handling of these materials. All hazardous waste is disposed of at the DECAM Hazardous Waste Facility (Building 9248) located on Butts Road. Any spills would be cleaned up in accordance with the Fort Carson Spill Prevention, Control, and Countermeasures Plan and Fort Carson Regulation 200-1 (Chapter 9) (Fort Carson, 2005c). Because operation of the facilities would not introduce new chemicals to the post and because handling, storage, and disposal of hazardous materials would follow all policies and regulations, implementation of the proposed action would result in less than significant impacts.

Worker precautions would be taken to minimize potential exposure to lead-based paints when buildings are demolished and when the debris is disposed. If soils are identified during construction with elevated concentrations of lead that exceed the standards identified in the December 1997 CDPHE “Proposed Soil Remediation Objectives Policy Document,” Fort Carson would remediate the soils to meet the cleanup criteria identified in the policy.

Should any of the buildings to be demolished contain asbestos-containing materials (ACM), the asbestos would be removed, encapsulated, or abated under proper regulatory parameters prior to razing the structure. Appropriate worker safety measures would be implemented for those workers that could encounter ACM.

The CDPHE has issued a draft regulation (6 CCR 1007-2; Part I Regulations Pertaining to Solid Waste Sites and Facilities) which requires asbestos management procedures to be in place in areas where there is a reason to suspect that asbestos may be a concern, or in those areas where asbestos was not suspected but where it has been identified during disturbance. At this time, the regulation has not been formally adopted by the State of Colorado. However, prior to construction, Fort Carson will comply with all applicable soil regulations.

Implementation of the proposed action would include the storage of fuels, such as for heating and vehicles. Fuels would be stored in accordance with all existing policies and regulations, thus minimizing the potential for spills and implementing Fort Carson’s Spill Prevention, Control and Countermeasures Plan (Fort Carson, 2005c) in case of accidental releases. Therefore, potential impacts would be less than significant.

Corrective Action Sites

No SWMUs are present within the IN BCT Complex project area. Several SWMUs may be impacted during construction of the Heavy BCT and 4th ID HQ Complex projects. Some of the SWMUs may require additional fieldwork to complete site close-out in accordance with Fort Carson’s RCRA Part B Permit for the site. To address the additional actions remaining for each of the six SWMUs within the Heavy BCT and 4th ID HQ Complex projects, CDPHE has requested that Fort Carson provide the following requisite reports:

- SWMUs 45 and 72: Soil data and soil risk screening letter report
- SWMUs 74 and 75: Final report and soil risk screening letter report
- SWMUs 34 and 67: Full risk screening report

Fort Carson plans for all requirements outlined by CDPHE (per September 26, 2005 letter from Susan Chaki of CDPHE to Carlos Rivero-deAguilar of Fort Carson DECAM) to be completed so that construction of the Heavy BCT and 4th ID HQ Complex projects may move forward according to the currently anticipated schedule. Based upon this plan to address the SWMUs

within the Heavy BCT and 4th ID HQ Complex projects, there would be no known impacts as a result of the SWMUs.

If contaminated materials were encountered during construction, protective measures would be implemented as directed by DECAM and potential impacts to human health and the environment from the existing contamination would be less than significant.

3.12.2.2 No Action Alternative

Under the no action alternative, the types and use of hazardous materials would not change and the Installation Restoration Program sites would not be impacted. Therefore, no impacts from hazardous or toxic materials or waste would result.

3.13 CUMULATIVE IMPACTS

The CEQ guidelines state that cumulative effects analyses should be limited to the effects that can be evaluated meaningfully by the decisionmakers. The guidelines further state that the area to use in defining the cumulative impacts geographical boundary should extend to the point at which the resource is no longer affected significantly (CEQ, 1997).

Fort Carson is currently modifying ongoing missions, finalizing program plans, and determining necessary facility requirements. In addition to conducting the normal military construction program, Fort Carson is also responding to the Army reorganizational efforts of AMF and IGPBS. Current construction projects include RCI housing privatization program, a series of community facilities to support morale, welfare, and recreation functions and additional administrative, training and maintenance facilities to support AMF and IGPBS. It is premature to conceptualize the long-term cumulative impacts until reorganization and planning decisions are final. Once complete, these reorganizational efforts would translate into a variety of projects. These multiple projects can be assessed in the future NEPA documentation, to include a BRAC EIS.

The summary presented in this section recognizes the effects of the proposed action on the various resources and conditions currently existing at Fort Carson. In general, as a result of this analysis the majority of the anticipated effects of the proposed action would be construction related impacts that can be mitigated. Potential cumulative impacts could occur with land use, water resources, vegetation/habitat loss, transportation, and air.

3.13.1 Proposed Action

The proposed sites are currently undeveloped or previously developed areas located within the cantonment area. The proposed projects are consistent with the surrounding land use within the cantonment area and the future land use plan. As the cantonment area continues to be developed, available developable parcels would decrease and new facilities would need to be constructed in areas which are currently undeveloped areas outside the cantonment area. Future demands may require use of lands that are currently assigned other land use categories. However, until specific building programs are defined and potential building sites identified, no specific cumulative impacts can be evaluated.

As development continues over time, it is possible that new development may encroach further upon habitat for sensitive species. The proposed action would result in loss of some habitat for the black-tailed prairie dog and burrowing owl. If development expands outside the cantonment area, it is likely that prairie dog/burrowing owl habitat would continue to be diminished.

As development continues, there would be additional demand on utilities, specifically for water. Efforts should be made to ensure that sufficient water supply is available over the long term as

growth continues in the Denver/Colorado Springs metropolitan region. The existing unused water rights at Fort Carson should ensure that water supply is sufficient to accommodate future growth on the Installation.

Cumulative impacts to air quality are a substantive issue as a result of continuing expansion on Fort Carson and in the surrounding region. An air quality conformity analysis will be conducted on any project with the potential to impact air quality to ensure that projects are within designated thresholds for air quality attainment individually and cumulatively. Should the analysis result in a nonconformity finding, mitigation measures would be developed and implemented to reduce the impacts and achieve conformity. The conformity analysis and any subsequent required mitigation would prevent deterioration of air quality related to ozone levels or other pollutants, resulting from the interaction of multiple projects.

Expenditures from the proposed action, in combination with other actions that could occur over the next 3 years, including AMF, IGPBS, RCI, and BRAC, would stimulate the local and regional economy, increasing employment and income. One constraining factor may be the availability of skilled construction labor force in the Colorado Springs area. If the demand exceeds the supply, additional laborers could be hired from the larger Denver metropolitan area.

Potential transportation impacts may occur during construction of multiple projects. Mitigation measures to address these potential traffic issues would be to maximize use of low traffic routes for construction vehicles to the extent possible, minimize construction vehicle movement during peak rush hours on the Installation, phase projects to avoid creation of areas with no unobstructed traffic routes, and site construction staging areas in locations that would minimize construction vehicle traffic within administrative, housing, and school areas.

3.13.2 No Action Alternative

There would be no change in existing conditions under the no action alternative. Therefore, there would be no potential for interaction with other reasonable foreseeable projects resulting from the no action alternative.

3.14 MITIGATION SUMMARY

Some unavoidable impacts would result from implementation of the proposed action. However, the proposed project design includes measures to eliminate impacts or further reduce the effects of impacts to less than significant. A USFWS migratory bird take permit would be required to allow destruction of burrowing owl nests or young known to occur within the proposed site. Required compensatory mitigation for impacts to wetlands would reduce the level of impact to less than significant or result in enhanced wetland resources.

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SECTION 4.0

FINDINGS AND CONCLUSIONS

With proposed mitigation measures, no significant impacts would result for any resource area under any of the considered alternatives. Table 4-1 summarizes the consequences of the no action alternative, the proposed action, and the alternative action.

4.1 FINDINGS

Table 4-1 summarizes the consequences of the no action alternative, the proposed action, and the alternative action.

4.1.1 Consequences of the Proposed Action

Implementation of the proposed action would result in less than significant permanent, adverse impacts to all resources. In addition, construction-related effects to all resource areas would be temporary and localized and potentially affect air quality, noise, geology and soils, water resources, transportation, and hazardous materials. Best management practices would be implemented to further reduce potential impacts.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials. A permanent, beneficial impact to water supply would result from installation of a water tank that would improve water pressure.

4.1.2 Consequences of the No Action Alternative

Under the no action alternative, conditions would remain as they are and no construction would occur. There would be no adverse impacts to any resource area. No beneficial impacts to the local economy or to water supply would result under the no action alternative.

4.1.3 Consequences of the Wilderness Road Area Alternative

According to the EA for *Construction of Facilities at Fort Carson* (Fort Carson, 2005a) implementing the proposed action at Wilderness Road would result in less than significant impacts. While the greatest impact would be the removal of several hundred acres of short grass prairie, the ecosystem is still considered strong on a regional basis, where private groups and agencies are jointly implementing preservation measures. The development would occur along existing roadways and near already developed areas, sites not considered to be high quality grassland ecosystem. Fort Carson actively manages grasslands to maintain their quality (that is, provide groundcover with native species and control invasive weeds). Other potential impacts to resources such as air quality, soils, and stormwater drainages would be further reduced by including mitigation measures in the design of any complex to be built at Wilderness Road, and by phasing project construction.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials.

Table 4-1
Summary of Potential Environmental and Socioeconomic Consequences
Construction of FY06 Facilities at Fort Carson, Colorado

Resource	Environmental and Socioeconomic Consequences		
	No Action	Proposed Action	Wilderness Road Alternative ^a
Land Use	No Effect	Less than significant.	Less than significant ^b
Air Quality	No Effect	Less than significant	Less than significant
Noise	No Effect	Less than significant	Less than significant
Geology and Soils			
Geology/Topography	No Effect	Less than significant	Less than significant
Soils	No Effect	Less than significant	Less than significant
Water Resources			
Surface Water/Stormwater	No Effect	Less than significant	Less than significant
Floodplains	No Effect	No effect	No effect
Hydrogeology/Groundwater	No Effect	No effect	No effect
Biological Resources			
Vegetation	No Effect	Less than significant	Less than significant
Wildlife	No Effect	Less than significant	Less than significant
Sensitive Species	No Effect	Less than significant	Less than significant
Wetlands	No Effect	Less than significant	No effect
Cultural Resources	No Effect	Less than significant	No effect
Socioeconomics			
Economic Development	No Effect	Less than significant	Less than significant
Demographics	No Effect	No effect	No effect
Housing/Quality of Life	No Effect	No effect	No effect
Environmental Justice	No Effect	No effect	No effect
Protection of Children	No Effect	No effect	No effect
Recreation	No Effect	Less than significant	No effect
Transportation	No Effect	Less than significant	Less than significant
Utilities			
Potable Water	No Effect	Minor beneficial impact.	No effect
Wastewater	No Effect	No effect	No effect
Energy	No Effect	No effect	No effect
Solid Waste	No Effect	Less than significant	Less than significant
Hazardous Materials, Wastes, ERP Sites, and Stored Fuels			
Hazardous/Toxic Materials	No Effect	Less than significant	Less than significant
ERP	No Effect	Less than significant	No Effect
Stored Fuels	No Effect	Less than significant	Less than significant

^a Information for the Wilderness Road Area alternative was obtained from review of the EA for *Construction of Facilities at Fort Carson* (Fort Carson, 2005a).

^bThe level of significance was determined based on the information provided in the EA for *Construction of Facilities at Fort Carson*.

4.2 CONCLUSIONS

With the proposed mitigation measures, no significant impacts would occur as a result of either implementation of the proposed action or the Wilderness Road Area Alternative. As a result, no significant impacts would occur in implementing the proposed action as opposed to the Wilderness Road Area Alternative.

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SECTION 5.0

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SECTION 6.0

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SECTION 7.0

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SECTION 8.0

ACRONYMS

ACM	asbestos-containing material
AMF	Army Modular Force
AR	Army Regulation
Army	U.S. Army
AST	aboveground storage tank
BCT	Brigade Combat Team
BRAC	Base Realignment And Closure
CDPHE	Colorado Department of Public Health and Environment
CEQ	President's Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
COCO	contractor-owned, contractor-operated
CSU	Colorado Springs Utilities
dB	decibel
dBA	decibel (A-weighted scale)
DECAM	Directorate of Environmental Compliance and Management
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
FNSI	Finding of No Significant Impact
FY	Fiscal year
gpm	gallons per minute
HQ	Headquarters
ICRMP	Integrated Cultural Resources Management Plan
ID	Infantry Division
IGPBS	Integrated Global Presence and Basing Strategy
IN BCT	Infantry Brigade Combat Team
INRMP	Integrated Natural Resources Management Plan
IWTP	industrial wastewater treatment plant

mcf	million cubic feet
MFRC	Military Family Resource Center
mgd	million gallons per day
NEPA	National Environmental Policy Act of 1969
NO _x	nitrogen oxide
NRHP	National Register of Historic Places
NZ	Noise Zone
PM	particulate matter
PPACG	Pikes Peak Area Council of Governments
RCRA	Resource Conservation and Recovery Act
RCI	Residential Community Initiative
ROD	Record of Decision
SH	Colorado State Highway
SWMU	solid waste management units
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank

Appendix A

Agency Correspondence and Comments

To be Provided

Appendix B

General Conformity Applicability Analysis

GENERAL CONFORMITY – RECORD OF NON-APPLICABILITY

Project Name: Fiscal Year (FY) 2006-Funded AMF/IGPBS Construction

Location: Fort Carson Cantonment Area

Within the carbon monoxide (CO) Attainment Maintenance Area: Yes

Activity Type: Construction of facilities to support Army Modular Force (AMF) and Integrated Global Presence and Basing Strategy (IGPBS) actions, which are proposed to be funded in FY 2006; and likely begin construction in early calendar year (CY) 2006.

Year of Project: Funding: FY 2006; Construction CY 2006

Duration of Project: Construction conservatively assumed to be 12 months (CY 2006); although schedules are likely to be extended into CY 2007

Information Source/POC: Ms. Deb Owings, DECAM NEPA Coordinator. Phone: 719.526.4666

NEPA Documentation: Environmental Assessment

See attached Supporting Documentation for General Conformity-RONA based on the Air Conformity Applicability Model results.

General Conformity under the Clean Air Act, Section 176, has been evaluated for the project described above according to the requirements of 40 CFR 93, Subpart B. The requirements of this rule are not applicable to this project/action because:

Total emissions from this project have been estimated and are below the conformity threshold value established at 40 CFR 93.153 (b) of 100 tons CO per year for a Carbon Monoxide Maintenance Area and are not considered regionally significant under CFR 93.153 (i).

Signed: _____
Mark Bradbury ECRB Branch Chief

Date: _____

CF: DECAM NEPA Program

SUPPORTING DOCUMENTATION FOR GENERAL CONFORMITY – RECORD OF NON- APPLICABILITY (RONA)

To: Mark Bradbury, DECAM, Fort Carson

From: Christine Keefe, Booz Allen Hamilton

Date: 12/20/2005

Re: Fort Carson Fiscal Year 2006-Funded AMF/IGPBS Construction

This memorandum reports the carbon monoxide (CO) emissions calculations for the anticipated construction activities planned to begin in calendar year (CY) 2006 at Fort Carson. The facilities are planned in support of Army Modular Force (AMF) and Integrated Global Presence and Basing Strategy (IGPBS) actions. These calculations are required to determine air quality conformity for the Revised Carbon Monoxide Maintenance Plan for the Colorado Springs Attainment/Maintenance Area.

The first level of the conformity applicability analysis is to compare the resulting CO emissions calculation to the regulatory threshold. According to 40 CFR 93.153(b)(2), the listed rate for CO emissions in a maintenance area is 100 tons per year (tpy). Also, if the emissions are under the threshold, then they must not be regionally significant according to 40 CFR 93.153(i); they need to be less than 10% of the total annual emissions within the maintenance area.

Using the emission results in the Revised Carbon Monoxide Maintenance Plan (APCD, 2003), the total CO emissions for the Colorado Springs Maintenance Area extrapolated for 2006 are 485 tons per day (tpd) or 176,843 tpy. Ten percent of this value is 48.5 tpd or 17,684 tpy.

Location of the Federal Action

Fort Carson, the Mountain Post, is an Army installation located southwest of Colorado Springs, between Interstate 25 and Highway 115, in El Paso, Pueblo

and Fremont counties. The cantonment area of Fort Carson is located in the northern part of the installation. Much of the activity at Fort Carson is directly related to supporting and training the 7th Infantry Division (ID), 3rd Armored Cavalry Regiment, 3rd Brigade 4th ID, 43rd Area Support Group, 2nd Brigade 2nd ID and 10th Special Forces Group.

<http://www.carson.army.mil/aboutfc/>

Existing Air Quality/Pollutant of Concern

Currently, Colorado Springs is classified as being in attainment for all criteria pollutants (with the exception of maintenance status for CO). Since the area was previously designated nonattainment, because of exceedances of the CO eight-hour standard, Colorado Springs was designated as a maintenance area in 1999. Therefore, CO is the only pollutant of concern for this conformity review.

In Colorado Springs, the primary source of CO is on-road vehicle emissions, which is 83% of the total CO emissions. There are some minor contributions from combustion sources; such as, aircraft, power plants, boilers, generators, and open and wood burning.

Technical Approach

For this evaluation the Air Conformity Applicability Model (ACAM) (AFCEE, 2005) was used and modified for local conditions. ACAM was developed by the Air Force to provide a conservative estimate of emissions as a screening tool for conformity. Based on instruction by the Fort Carson DECAM and to meet the needs for the focused Environmental Assessment that was contracted separately, this applicability analysis focused only on calculating CO emissions from the building construction associated with AMF/IGPBS.

For construction projects the ACAM model calculates emissions from (1) grading equipment (e.g., graders and loaders), (2) gasoline powered stationary sources to power equipment (e.g., generators, saws), and (3) mobile equipment (e.g., forklifts, dump trucks). Also, emissions from construction worker personal vehicle trips to the work site were included. These default values and the related emission factors were developed from the Sacramento Metropolitan Air Quality Management District (SMAQD,1993), South Coast Air Management

District (SCAMD, 1993), and EPA Non Road Engine and Vehicle Emission Report (EPA, 1991).

For this application at Fort Carson the only modification made to ACAM was for emissions calculated for generators required to run power equipment during construction. ACAM assumed that those emissions were from two gasoline powered industrial engines operating every 10,000 square feet of building construction, six hours per day for all construction days. Since diesel powered engines are more commonly used in Colorado Springs, it was assumed they would be used at Fort Carson. Accordingly, the results of ACAM were amended by using the following two steps:

1. Adjust for the percentage of total construction emissions that are attributed to the gasoline engines. Using ACAM, CO emissions were calculated for CY 2006 based on 50,000 square feet and one acre of land disturbance for construction, which amounts to 28.5 tpy. The component of this number attributed to gasoline engines is 24.2 tpy or 85%. Since the model caps emissions at 50,000 square feet for these types of mobile sources, the emissions are not linear to construction square footage.¹ At 650,000 square feet (the upper range of construction for a single project in 2006 at Fort Carson), ACAM results in 35 tpy CO emissions. Since gasoline engine emissions are capped at 24.2 tpy, the percentage attributed to stationary source engines changes to 69.5%. To be conservative, 69.5% was used for these calculations.
2. Adjust for using diesel engines. The CO emission factor used for gasoline engines in ACAM was 34.26 pounds per million British Thermal Units (MMBTUs) (Woodbury, 2005a). However, the corresponding emission factor for CO from diesel engines is 0.75 pound per MMBTUs (Woodbury, 2005b). These emissions factors are similar to those found in the Environmental Protection Agency's AP-42 emission factors (EPA, 2001).

¹ The cap is hard-wired into ACAM and is based on a study performed in Sacramento (SMAQD, 1993). The assumption is that construction activities associated with mobile and stationary sources occur over a maximum area on a per day basis; and annual emissions are driven by the number of days in the Phase II construction (non-grading). The amount of construction requiring industrial engines is limited to the days of construction, and therefore is limited to 50,000 square feet.

Since ACAM emission factors for construction are hard-wired, an adjustment to the modeling results needed to be made. The resulting factor that was applied to the ACAM output was:

$$\text{Fort Carson CO Emissions} = \text{ACAM Result} \times (1 - 0.695) + \text{ACAM Result} \times 0.823 \times 0.75 / 34.26$$

The first part of the equation reflects all emissions expected during construction, except those from gasoline engines. The second component of the equation relates to adjustment for diesel engines used during construction.

Construction Inputs/Assumptions

For the construction activities it was conservatively assumed that the construction would consist of seven separate buildings annotated in the Department of Defense (DD) 1391 forms:

Project Number/Name	Construction Size (Square Feet)	Disturbed Land (Acres)
65470/Brigade HQ Bldg	30,400	2
65470/Battalion HQ Bldg	96,036	6
65470/Dining Facility	30,257	2
65473/Enlisted Barracks	561,444	37
65473/Dining Facility	30,257	2
65478/Command HQ Bldg	179,310	12
65478/Enlisted Barracks	89,304	6

Further, it was assumed that:

- Construction of these listed new facilities is expected to occur in the portion of the cantonment area that falls within the Colorado Springs CO Maintenance Area.
- Construction duration times were conservatively assumed to be 12 months for each project, however in reality longer schedules are likely for the projects.
- Phase I construction (grading) was assumed to last 182 days and Phase II (building construction) was assumed to last 183 days. This assumption was recommended within the ACAM Technical Support Document (AFCEE, 2005)
- The grading was assumed to be performed on 0.66 acre per every 10,000 square feet of building construction.²
- Facilities were assumed not to require heating during CY 2006 as construction completion/facility use will likely not occur until CY 2007. This was based on conversations with Mr. Vince Guthrie, Fort Carson, Directorate of Public Works.

Results

The information provided in the table above (without adjustment) was input into ACAM and ran as seven different scenarios for CY 2006, starting in the first quarter and extending through the end of the year. The initial result of ACAM was 175 tpy CO.

However, adjusting for the use of diesel engines during construction using the factor described in the Approach Section and assuming a worse-case scenario, the total construction emissions for all seven buildings to be constructed in CY 2006 resulted in:

² The grading acreage was calculated from the DD 1391 data using the building footprint, road construction, and a buffer of 30% beyond the footprint. The acreage is calculated to be 33 acres for the buildings and another 34 acres for road construction (total of 67 acres). Since the entire construction is 1,017,008 square feet, for the proposed building construction of 10,000 square feet this equates to $10,000/1,017,008 \times 67$ or 0.66 acres per 10,000 square feet.

58 tpy CO

Since this number uses the ratios developed for the 650,000 square foot ACAM results, they are conservative, representing the higher range of expected emissions during construction.

The CO threshold is 100 tpy and 10 percent of the Colorado Springs Maintenance Area CO is 17,648 tpy.

Conclusion

These values are both well below the 100 tpy CO applicability threshold in 40 CFR 93.153(b), and well below the 10 percent of total annual emissions within the maintenance area applicability threshold in 40 CFR 93.153(i); the project is not regionally significant. Therefore, a conformity determination is not required for this project.

References

Air Force Center for Environmental Excellence (AFCEE), 2005: U. S. Air Force Air Conformity Applicability Model, Version 4.2 – Technical Documentation, Brooks Air Force Base, Texas, April 2005.

Air Pollution Control Division (APCD), 2003; Revised Carbon Monoxide Maintenance Plan for the Colorado Springs Attainment/Maintenance Area, December 18, 2003.

<http://www.cdphe.state.co.us/ap/down/SIPcolspgsCO.pdf>

Sacramento Air Quality District, 1994; Air Quality Thresholds of Significance, December, 1994.

South Coast Air Management District, 1993; California Environmental Quality (CEQA) Guidelines.

U. S. Environmental Protection Agency, 2001; AP-42 Draft Compilation of Air Pollutant Emission Factors, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina.

<http://www.epa.gov/ttn/chief/ap42/index.html>

Woodbury, Brian, 2005a; personal communication--email from Brian Woodbury of Earth Tech to Warner Reeser of BAH, October 20, 2005. Information source cited was Sacramento Air Quality District, 1994; Air Quality Thresholds of Significance, December, 1994.

Woodbury, Brian, 2005b; personal communication—telephone conversation with Warner Reeser of BAH, November 3, 2005. Information source cited was Sacramento Air Quality District, 1994; Air Quality Thresholds of Significance, December, 1994.

<http://www.globalsecurity.org/military/facility/fort-carson.htm>

Persons/Agencies Consulted

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Appendix C

Standard Operating Procedures for Cultural Resources

Appendix C

6.3 SOP: Inadvertent Discovery of Archeological Resources or Burials

Purpose

This SOP outlines procedures to be followed in the event of inadvertent discovery of archeological resources or burial sites during military training or other Army-sanctioned activities, including recreational activities.

Authorities

ARPA of 1979; NAGPRA; NHPA of 1966, as amended; 36 CFR 800, DoD Instruction 4715; AR 200-4

6.3.1 Who is Responsible for Inadvertent Discovery

Implementation of this SOP is the responsibility of field troops, unit commanders, civilian personnel, recreational users, Range Division, and the CRM, who will contact other parties as appropriate.

6.3.2 Procedures

Step 1. Upon discovery of archeological materials or human remains, field troops, 7th ID and Fort Carson personnel, or any other applicable users (e.g., recreational users) will immediately cease any ground-disturbing operations and report the finding to Range Division (soldiers will report to their unit commander, who will report the finding to Range Division). If the discovery is during facilities maintenance operations in the cantonment area, then DPW will be notified in lieu of Range Division. In the case of ongoing operations (e.g., military training, facilities maintenance operations), a buffer zone (100-meter) may be established around the find, outside which ground-disturbing operations may continue.

Step 2. Range Division or DPW, as appropriate, will contact the CRM at:

Cultural Resources Manager

Building 302

5010 Tevis Street

Fort Carson, CO 80913-4000

(719) 526-3728

Randy.Korgel@carson.army.mil

Step 3. The CRM will inspect the area.

Contingency 1: Human Remains Present

If human remains are present, the CRM will determine whether they may be associated with a crime scene. If there may be a crime scene, the CRM will notify the Provost Marshals Office (PMO) and the Criminal Investigation Division (CID). PMO and CID will assume custody of the area. If the remains are not associated with a crime scene, the CRM will immediately proceed with the NAGPRA SOP (Section 6.4).

Contingency 2: Cultural Materials Found

If cultural materials (*i.e.*, artifacts, features, etc.) are found without a burial, the preferred alternative will be to move ground-disturbing operations to another location and include the area in future archeological inventory, as described in Section 5.2.1. If operations cannot be moved to avoid the site (or if operations are likely to occur in the area in the near future), the CRM will proceed to Step 4.

Contingency 3: Only Natural Formations

If the CRM is able to determine that the finding represents merely natural formations, the CRM will inform Range Division and prepare a written Memorandum For Record detailing the finding. Operations may proceed unimpeded.

Step 4 (if necessary):

The CRM will initiate the Section 106 process (Section 6.2, *SOP: The Section 106 Process*) in the case of an archeological site or NAGPRA consultation (Section 6.4, *SOP: Native American Graves Protection and Repatriation Act Standard Operating Procedures (Interim)*) in the case of a burial. Operations may proceed following completion of the appropriate review processes and pursuant to any resulting agreement documents.

6.4 Native American Graves Protection and Repatriation Act Standard Operating Procedures (Interim)

Purpose

This SOP outlines procedures to be followed in the event of the discovery of Native American human remains or items of cultural patrimony during 7th ID and Fort Carson mission activities or archeological investigations. This SOP will apply until such time that a comprehensive agreement for NAGPRA consultation is finalized (Section 5.1.3.1).

Authorities

NAGPRA; 43 CFR 10; DoD Instruction 4715; AR 200-4

6.4.1 Who is Responsible for NAGPRA Compliance?

The CRM is responsible for implementation of this SOP. Implementation also requires the cooperation of Native American tribes, the DECAM Director, and the Installation Commander. Ultimate responsibility for NAGPRA compliance rests with the Installation Commander.

6.4.2 Procedures

These procedures will be implemented in the following situations:

- following Steps 1, 2, and 3 of the Inadvertent Discovery SOP (Section 6.3) once human remains, funerary objects, or objects of cultural patrimony have been discovered during activities on Fort Carson or the PCMS; or
- during archeological investigations on Fort Carson or the PCMS when potential Native American remains, funerary objects, or objects of cultural patrimony have been discovered.

Step 1: The CRM will make an initial determination of possible cultural affiliation. The remains will be examined *in situ* unless they have already eroded from their original location or have been removed from their original resting place by accident or as a result of looting (the CRM may wish to consult a physical or forensic anthropologist). If the remains are clearly not Native American, the CRM will follow procedures outlined in the Colorado Unmarked Human Graves Act (Colorado State Statute 24-80-1301). If the remains may be Native American, then the CRM will immediately notify the Director, DECAM and the Installation Commander of the finding.

Step 2: The CRM will prepare a preliminary report outlining the circumstances and nature of the discovery, results of initial examination, and a prospective plan of action for consultation and disposition of discovered objects. The report will be submitted to the Director, DECAM and the Installation Commander within forty-eight (48) hours of initial notification.

Step 3: Within 48 hours after receipt of the report from the CRM, the Installation Commander will prepare a Memorandum of Notification for submission to Native American tribes.

Step 4: Upon receipt of the Installation Commander's notification the CRM will notify possible lineal descendants or culturally affiliated Native American tribes of the discovery. Notification will be by telephone and by forwarding the Memorandum of Notification. Notification will include the report of the field evaluation. Notices shall be sent to the tribal chairpersons, and a copy shall be furnished to

the designated tribal NAGPRA coordinators. Decisions on which tribes to notify will be based on the order of priority of ownership described in 25 USC 3002, Sec. 3(2) and 43 CFR 10.6, information in the Native American contacts file kept by the CRM, and the list of tribal points of contacts in Section 5.1.3.2.

Step 5: Consultation will proceed toward the development of a written plan of action in accordance with 43 CFR 10.5(e) among the appropriate tribes and the Installation Commander. NAGPRA agreements will be staffed through Command channels in accordance with AR 200-4.

Step 6: The activity that resulted in the inadvertent discovery of Native American human remains or cultural objects may resume after thirty (30) days of the preparation of the Memorandum of Notification, pursuant to any resulting plan of action.

Source:

7th Infantry Division and Fort Carson. Integrated Cultural Resources Management Plan. 2002-2006